

# UNIVERSITY OF ILLINOIS ANNUAL REGISTER

1913-1914



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# University of Illinois

## ANNUAL REGISTER

1913 - 1914

General Announcements, 1914-1915

Faculty and Courses, 1913-1914

Students, 1913-1914

URBANA  
PUBLISHED BY THE UNIVERSITY  
FEBRUARY 1914

University of Illinois

ANNUAL REGISTER

1911



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# CALENDAR 1913, 1914, 1915

1913

JULY

| S   | M   | T   | W   | T   | F   | S   |
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AUGUST

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SEPTEMBER

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OCTOBER

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NOVEMBER

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DECEMBER

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1914

JANUARY

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FEBRUARY

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MARCH

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APRIL

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JULY

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AUGUST

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SEPTEMBER

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OCTOBER

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NOVEMBER

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DECEMBER

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1915

JANUARY

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FEBRUARY

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MARCH

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APRIL

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MAY

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JUNE

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| 20  | 21  | 22  | 23  | 24  | 25  | 26  |
| 27  | 28  | 29  | 30  | ... | ... | ... |
| ... | ... | ... | ... | ... | ... | ... |



# THE UNIVERSITY CALENDAR

1913-1914-1915

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## FIRST SEMESTER, 1913-1914

1913

|                             |                                                                                                       |
|-----------------------------|-------------------------------------------------------------------------------------------------------|
| Sept. 9, Tues.              | Quarterly meeting of the Board of Trustees                                                            |
| Sept. 15-18, Mon. to Thurs. | Entrance examinations                                                                                 |
| SEPT. 22, 23, MON., TUES.   | REGISTRATION DAYS                                                                                     |
| Sept. 24, Wed., 8 a. m.     | Instruction begun                                                                                     |
| 4 p. m.                     | Freshman convocation                                                                                  |
| Oct. 6, Mon., 4 p. m.       | Senate meeting                                                                                        |
| Nov. 3, Mon., 5 p. m.       | Latest day for announcement of subjects for all undergraduate and graduate theses                     |
| Nov. 14, Fri.               | Russian Symphony Orchestra                                                                            |
| Nov. 20-22, Thurs. to Sat.  | High School conference                                                                                |
| Nov. 26, Wed., 12 m.        | Thanksgiving recess begun                                                                             |
| Dec. 1, Mon., 12 m.         | Instruction resumed                                                                                   |
| 4 p. m.                     | Senate meeting                                                                                        |
| Dec. 2, Tues.               | Illinois Day                                                                                          |
| Dec. 9, Tues.               | Quarterly meeting of the Board of Trustees                                                            |
| Dec. 11, Thurs.             | Cincinnati Symphony Orchestra                                                                         |
| Dec. 12, Fri.               | Junior promenade                                                                                      |
| Dec. 19, Fri., 5 p. m.      | Holiday recess begun                                                                                  |
| Dec. 31, Wed., 5 p. m.      | Latest day for submission of outlines of theses by candidates for professional degrees in engineering |

1914

|                       |                             |
|-----------------------|-----------------------------|
| Jan. 5, Mon., 12 m.   | Instruction resumed         |
| Jan. 29, Thurs.       | Semester examinations begun |
| Feb. 2, Mon., 4 p. m. | Senate meeting              |
| Feb. 5, Thurs.        | Semester examinations ended |
| Feb. 6, Fri.          | Annual sophomore cotillion  |

## SECOND SEMESTER, 1913-1914

|                           |                                                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------|
| FEB. 9, 10, MON., TUES.   | REGISTRATION DAYS                                                                                |
| Feb. 10, Tues.            | Post-exam. Jubilee                                                                               |
| Feb. 11, Wed., 8 a. m.    | Instruction begun                                                                                |
| Feb. 12, Thurs.           | Lincoln Day                                                                                      |
| Feb. 17, Tues.            | St. Louis Symphony Orchestra                                                                     |
| Feb. 20, Fri.             | Annual military ball                                                                             |
| March 2, Mon.             | University Day                                                                                   |
| March 7, Sat.             | Annual band concert                                                                              |
| March 10, Tues.           | Annual meeting of the Board of Trustees                                                          |
| April 1, Wed., 5 p. m.    | Latest day for filing of completed theses by candidates for professional degrees in engineering  |
| April 6, Mon., 4 p. m.    | Senate meeting                                                                                   |
| April 9, Thurs., 12 m.    | Easter recess begun                                                                              |
| April 14, Tues., 12 m.    | Instruction resumed                                                                              |
| May 7, Thurs.             | Minneapolis Symphony Orchestra                                                                   |
| May 15, Fri., evening     | Interscholastic oratorical contest                                                               |
| May 14-16, Thurs. to Sat. | Public school art exhibit                                                                        |
| May 16, Sat.              | Interscholastic athletic meet                                                                    |
| 12 m.                     | Latest day for receipt by the Dean of the Graduate School of certified copies of doctors' theses |
|                           | Hazleton prize drill                                                                             |
| May, between 15 and 31    | Annual inspection                                                                                |
|                           | Company competitive drill                                                                        |
| May 30, Sat.              | Military Day                                                                                     |
| June 1, Mon., 4 p. m.     | Senate meeting                                                                                   |
|                           | Latest day for acceptance of undergraduate theses                                                |
|                           | Latest day for receipt by the Dean of the Graduate School of certified copies of masters' theses |
| June 4, Thurs.            | Semester examinations begun                                                                      |
| June 9, Tues.             | Quarterly meeting of the Board of Trustees                                                       |
| June 11, Thurs.           | Semester examinations ended                                                                      |
| June 14, Sun.             | Baccalaureate address                                                                            |
| June 15, Mon.             | Class Day                                                                                        |
|                           | Senior ball                                                                                      |
| June 16, Tues.            | Alumni Day                                                                                       |
| JUNE 17, WED.             | FORTY-THIRD ANNUAL COMMENCEMENT                                                                  |

SUMMER SESSION, 1914

|                             |                       |
|-----------------------------|-----------------------|
| JUNE 22, MON.               | REGISTRATION DAY      |
| June 23, Tues.              | Instruction begun     |
| July 11, 18, 25, Aug. 1. S. | Entrance examinations |
| Aug. 13, 14, Thurs., Fri.   | Final examinations    |

FIRST SEMESTER, 1914-1915

|                            |                                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------------------------|
| Sept. 8, Tues.             | Quarterly meeting of the Board of Trustees                                                            |
| Sept. 14-18, Mon. to Fri.  | Entrance examinations                                                                                 |
| SEPT. 21, 22, MON., TUES.  | REGISTRATION DAYS                                                                                     |
| Sept. 23, Wed., 8 a. m.    | Instruction begun                                                                                     |
| 4 p. m.                    | Freshman convocation                                                                                  |
| Oct. 5, Mon., 4 p. m.      | Senate meeting                                                                                        |
| Nov. 2, Mon., 5 p. m.      | Latest day for announcement of subjects for all undergraduate and graduate theses                     |
| Nov. 19-21, Thurs. to Sat. | High school conference                                                                                |
| Nov. 25, Wed., 12 m.       | Thanksgiving recess begun                                                                             |
| Nov. 30, Mon., 12 m.       | Instruction resumed                                                                                   |
| Dec. 2, Wed.               | Illinois Day                                                                                          |
| Dec. 7, Mon., 4 p. m.      | Senate meeting                                                                                        |
| Dec. 8, Tues.              | Quarterly meeting of the Board of Trustees                                                            |
| Dec. 11, Fri.              | Junior promenade                                                                                      |
| Dec. 22, Tues., 5 p. m.    | Holiday recess begun                                                                                  |
| Dec. 31, Thurs., 5 p. m.   | Latest day for submission of outlines of theses by candidates for professional degrees in engineering |

1915

|                       |                             |
|-----------------------|-----------------------------|
| Jan. 4, Mon., 12 m.   | Instruction resumed         |
| Jan. 28, Thurs.       | Semester examinations begun |
| Feb. 1, Mon., 4 p. m. | Senate meeting              |
| Feb. 4, Thurs.        | Semester examinations ended |
| Feb. 5, Fri.          | Annual sophomore cotillion  |



## SECOND SEMESTER, 1914-1915

|                               |                                                                                                  |
|-------------------------------|--------------------------------------------------------------------------------------------------|
| FEB. 8, 9, MON., TUES.        | REGISTRATION DAYS                                                                                |
| Feb. 9, Tues.                 | Post-exam. Jubilee                                                                               |
| <b>Feb. 10, Wed., 8 a. m.</b> | <b>Instruction begun</b>                                                                         |
| Feb. 12, Fri.                 | Lincoln Day                                                                                      |
| Feb. 19, Fri.                 | Annual military ball                                                                             |
| March 2, Tues.                | University Day                                                                                   |
| March 6, Sat.                 | Annual band concert                                                                              |
| March 9, Tues.                | Annual meeting of the Board of Trustees                                                          |
| April 1, Thurs., 5 p. m.      | Latest day for filing of completed theses by candidates for professional degrees in engineering  |
| April 5, Mon., 4 p. m.        | Senate meeting                                                                                   |
| <b>April 1, Thurs., 12 m.</b> | <b>Easter recess begun</b>                                                                       |
| <b>April 6, Tues., 12 m.</b>  | <b>Instruction resumed</b>                                                                       |
| May 14, Fri., evening         | Interscholastic oratorical contest                                                               |
| May 13-15, Thurs. to Sat.     | Public school art exhibit                                                                        |
| May 15, Sat.                  | Interscholastic athletic meet                                                                    |
| 12 m.                         | Latest day for receipt by the Dean of the Graduate School of certified copies of doctors' theses |
| May, between 15 and 31        | Hazelton prize drill                                                                             |
|                               | Annual inspection                                                                                |
|                               | Company competitive drill                                                                        |
| May 29, Sat.                  | Military Day                                                                                     |
| June 1, Tues., 12 m.          | Latest day for acceptance of undergraduate theses                                                |
|                               | Latest day for receipt by the Dean of the Graduate School of certified copies of masters' theses |
| <b>June 3, Thurs.</b>         | <b>Semester examinations begun</b>                                                               |
| June 7, Mon., 4 p. m.         | Senate meeting                                                                                   |
| June 8, Tues.                 | Quarterly meeting of the Board of Trustees                                                       |
| <b>June 10, Thurs.</b>        | <b>Semester examinations ended</b>                                                               |
| June 13, Sun.                 | Baccalaureate address                                                                            |
| June 14, Mon.                 | Class Day                                                                                        |
|                               | Senior ball                                                                                      |
| June 15, Tues.                | Alumni Day                                                                                       |
| <b>JUNE 16, WED.</b>          | <b>FORTY-FOURTH ANNUAL COMMENCEMENT</b>                                                          |



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\*On leave for one year from November 1, 1913.

†On leave.



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\*JOHN ARCHIBALD FAIRLIE, Ph.D., *Professor of Political Science*  
LEONARD HEGNAUER, B.S., *Professor of Crop Production*  
JOHN WILLIAM LLOYD, M.S.A., *Professor of Olericulture*  
JEREMIAH GEORGE MOSIER, B.S., *Professor of Soil Physics*  
GERTRUDE EVELYN MOULTON, A.B., *Director of Physical Training for Women*  
JAMES HARVEY PETTIT, Ph.D., *Professor of Soil Fertility*  
JOHN NORTON POMEROY, A.M., LL.D., *Professor of Law*  
LOUIE HENRIE SMITH, Ph.D., *Professor of Plant Breeding and Acting Head of the Department of Agronomy†*  
CHESTER GARFIELD VERNIER, Ph.B., J.D., *Professor of Law*  
BRUCE WILLET BENEDICT, B.S., *Director of Shop Laboratories in the Department of Mechanical Engineering*  
LOTUS DELTA COFFMAN, Ph.D., *Professor of Education*  
WILLIAM EDWARD BURGE, Ph.D., *Assistant Professor of Physiology and Acting Head of the Department of Physiology*

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\*On leave, second semester, 1913-14.

†Acting Head from November 1, 1913.



- ERNEST LUDLOW BOGART, Ph.D., *Professor of Economics*  
WILLIAM GREEN HALE, B.S., LL.B., *Professor of Law and Secretary of the Faculty of the College of Law*  
MADISON BENTLEY, B.S., Ph.D., *Professor of Psychology and Director of the Psychological Laboratory*  
RAY THOMAS STULL, E.M. (Cer.), *Ceramist and Acting Director of the Courses in Ceramics*  
CHARLES FREDERICK HOTTES, Ph.D., *Professor of Plant Physiology*  
HARRY ALEXIS HARDING, Ph.D., *Professor of Dairy Bacteriology and Head of the Department of Dairy Husbandry*  
GEORGE ENFIELD FRAZER, A.B., LL.B., *Professor of Public Accounting and Comptroller*  
KENDRIC CHARLES BABCOCK, B.Lit., Ph.D., *Dean of the College of Liberal Arts and Sciences*  
CHARLES HUGHES JOHNSTON, Ph.D., *Professor of Secondary Education*  
WILLIAM TRELEASE, D.Sc., LL.D., *Professor of Botany and Acting Head of the Department of Botany*  
JOHN STERLING KINGSLEY, D.Sc., *Professor of Zoology*  
CLARENCE WALWORTH ALVORD, Ph.D., *Professor of History*  
CLARENCE WILLIAM BALKE, Ph.D., *Professor of Inorganic Chemistry*  
WILLIAM SHIRLEY BAYLEY, Ph.D., *Professor of Geology*  
WALTER COSTELLA COFFEY, M.S., *Professor of Sheep Husbandry*  
MARTHA JACKSON KYLE, A.M., *Instructor in English and Acting Dean of Women*  
LAURENCE MARCELLUS LARSON, Ph.D., *Professor of History*  
OTTO EDUARD LESSING, Ph.D., *Professor of German*  
ELLERY BURTON PAINE, M.S., E.E., *Associate Professor of Electrical Engineering and Acting Head of the Department of Electrical Engineering*  
HENRY LEWIS RIETZ, Ph.D., *Professor of Mathematical Statistics*  
CHARLES MULFORD ROBINSON, A.M., *Professor of Civic Design*  
FRANK SMITH, A.M., *Professor of Systematic Zoology and Curator of the Museum of Natural History*  
JOEL STEBBINS, Ph.D., *Professor of Astronomy*  
EDWARD WIGHT WASHBURN, Ph.D., *Professor of Physical Chemistry*  
LOUIS ALLEN HARDING, M.E., *Professor of Experimental Mechanical Engineering*

LORING HARVEY PROVINE, B.S., A.E., *Professor of Architectural Engineering and Acting Head of the Department of Architecture*

FRANK DANIEL WEBSTER, Major 20th U. S. Infantry, *Professor of Military Science and Tactics and Commandant*

\*FRANK LINCOLN STEVENS, Ph.D., *Professor of Plant Pathology*

### ASSOCIATE PROFESSORS

EDWARD FULTON, Ph.D., *Associate Professor of Rhetoric*

†DAVID HOBART CARNAHAN, Ph.D., *Associate Professor of Romance Languages*

WILLIAM ABBOTT OLDFATHER, Ph.D., *Associate Professor of the Classics*

CHARLES ZELENY, Ph.D., *Associate Professor of Zoology*

ALBERT HOWE LYBYER, Ph.D., *Associate Professor of History*

GEORGE TOBIAS FLOM, Ph.D., *Associate Professor of Scandinavian*

ALEXANDER DYER MACGILLIVRAY, Ph.D., *Associate Professor of Systematic Entomology*

ARTHUR STANLEY PEASE, Ph.D., *Associate Professor of the Classics and Curator of the Museum of Classical Art and Archeology*

### ASSISTANT PROFESSORS

GEORGE HENRY MEYER, A.M., *Assistant Professor of German and Assistant Dean of the College of Liberal Arts and Sciences*

EDWARD CHAUNCEY BALDWIN, Ph.D., *Assistant Professor of English*

NEIL CONWELL BROOKS, Ph.D., *Assistant Professor of German and Curator of the Museum of European Culture*

OSCAR ADOLPH LEUTWILER, M.E., *Assistant Professor of Machine Design*

FRANCES SIMPSON, M.L., B.L.S., *Assistant Professor of Library Economy and Assistant Director of the Library School*

NATHAN AUSTIN WESTON, Ph.D., *Assistant Professor of Economics and Assistant Director of the Courses in Business Administration*

CHARLES TOBIAS KNIPP, Ph.D., *Assistant Professor of Physics*

---

\*Beginning February 1, 1914.

†On leave.



- HARRY GILBERT PAUL, Ph.D., *Assistant Professor of the English Language and Literature*
- THOMAS EDMUND SAVAGE, Ph.D., *Assistant Professor of Stratigraphic Geology*
- HERBERT FISHER MOORE, B.S., M.M.E., *Assistant Professor of Theoretical and Applied Mechanics*
- FRED HENRY RANKIN, *Assistant Professor and Superintendent of Agricultural Extension, Assistant to the Dean of the College of Agriculture*
- FLOYD ROWE WATSON, Ph.D., *Assistant Professor of Physics*
- EDWARD HARDENBERGH WALDO, A.B., M.S., M.E., *Assistant Professor of Electrical Engineering*
- JUSTUS WATSON FOLSOM, D.Sc., *Assistant Professor of Entomology*
- WILLIAM FREDERICK SCHULZ, E.E., Ph.D., *Assistant Professor of Physics*
- JOHN MYRON BRYANT, B.S., E.E., *Assistant Professor of Electrical Engineering*
- LEWIS FLINT ANDERSON, Ph.D., *Assistant Professor of Education*
- JOHN DRISCOLL FITZ-GERALD II, Ph.D., *Assistant Professor of Romance Languages*
- JAKOB KUNZ, Ph.D., *Assistant Professor of Mathematical Physics*
- WILLIAM SPENCE ROBERTSON, Ph.D., *Assistant Professor of History*
- \*LOUIS DIXON HALL, M.S., *Assistant Professor of Animal Husbandry*
- CHARLES HERSCHEL SISAM, Ph.D., *Assistant Professor of Mathematics*
- JOHN McBEATH SNODGRASS, B.S., *Assistant Professor of Railway Mechanical Engineering*
- SIMON LITMAN, Dr.Jur.Pub.etRer.Cam., *Assistant Professor of Economics*
- DAVID FORD MCFARLAND, Ph.D., *Assistant Professor of Applied Chemistry*
- JAMES BYRNIE SHAW, D.Sc., *Assistant Professor of Mathematics*
- ARNOLD EMCH, Ph.D., *Assistant Professor of Mathematics*
- JEAN BAPTISTE BECK, Ph.D., *Assistant Professor of Romance Languages*
- WALTER FAIRLEIGH DODD, Ph.D., *Assistant Professor of Political Science*

---

\*On leave.



HERMAN BERNARD DORNER, M.S., *Assistant Professor of Floriculture*

MELVIN LORENIUS ENGER, B.S., C.E., *Assistant Professor of Theoretical and Applied Mechanics*

NELLIE ESTHER GOLDTHWAITE, Ph.D., *Assistant Professor of Household Science*

GEORGE FOSS SCHWARTZ, B.Mus., A.M., *Assistant Professor of Music*

ALONZO MORRIS BUCK, M.E., *Assistant Professor of Railway Electrical Engineering*

ARETAS WILBUR NOLAN, A.B., M.S., *Assistant Professor of Agricultural Extension*

FRANKLIN WILLIAM SCOTT, Ph.D., *Assistant Professor of English and Secretary of the Department of English*

HARRIE STUART VEDDER JONES, Ph.D., *Assistant Professor of English*

OTTO RAHN, Ph.D., *Assistant Professor of Bacteriology*

BETHEL STEWART PICKETT, M.S., *Assistant Professor of Pomology*

JOHN A DETLEFSEN, D.Sc., *Assistant Professor of Genetics*

ALLEN BOYER MCDANIEL, B.S., *Assistant Professor of Civil Engineering*

WILHELM MILLER, Ph.D., *Assistant Professor of Landscape Horticulture*

\*LEONARD BLOOMFIELD, Ph.D., *Assistant Professor of Comparative Philology and German*

FREDERIC DUNCALF, Ph.D., *Assistant Professor of History*

\*DAVID SIMON BLONDHEIM, Ph.D., *Assistant Professor of Romance Languages*

HOWARD VERNON CANTER, Ph.D., *Assistant Professor of the Classics*

CLARENCE GEORGE DERICK, Ph.D., *Assistant Professor of Chemistry*

JAMES LLOYD EDMONDS, B.S., *Assistant Professor of Horse Husbandry*

ORA STANLEY FISHER, B.S., *Assistant Professor of Soil Fertility*

\*NELSON WILLIAM HEPBURN, M.S., *Assistant Professor of Dairy Manufactures*

HARVEY WILLARD MILLER, M.E., *Assistant Professor of General Engineering Drawing and Assistant Dean of the College of Engineering*

---

\*On leave.

MARTIN JOHN PRUCHA, Ph.D., *Assistant Professor of Dairy Bacteriology*

RALPH RODNEY ROOT, M.L.A., *Assistant Professor of Landscape Gardening*

HENRY PERLY RUSK, M.S., *Assistant Professor of Cattle Husbandry*

CONSTANCE BARLOW-SMITH, *Assistant Professor of Sight Singing and Ear Training, in charge of Public School Music*

GEORGE MCPHAIL SMITH, Ph.D., *Assistant Professor of Chemistry*

JAMES ELMO SMITH, C.E., *Assistant Professor of Civil Engineering*

HENRY CHARLES PAUL WEBER, Ph.D., *Assistant Professor of Chemistry*

ARTHUR CUTTS WILLARD, B.S., *Assistant Professor of Heating and Ventilation*

ELMER ALLEN HOLBROOK, B.S., *Assistant Professor of Mining Engineering*

PERCY ASH, B.S., C.E., *Assistant Professor of Architectural Design*

WILLIAM CALDWELL TITCOMB, A.B., B.S., *Assistant Professor of Architecture*

JOHN IRA PARCEL, A.B., B.S., *Assistant Professor of Structural Engineering*

WILBUR M WILSON, M.M.E., *Assistant Professor of Structural Engineering*

#### ASSOCIATES

CHARLES RICHARD CLARK, B.S., *Associate in Architectural Construction*

THACHER HOWLAND GUILD, A.M., *Associate in English*

ARTHUR ROMEYN SEYMOUR, Ph.D., *Associate in Spanish and Adviser to Foreign Students*

ARTHUR ROBERT CRATHORNE, Ph.D., *Associate in Mathematics*

CHARLES CHRISTOPHER ADAMS, Ph.D., *Associate in Animal Ecology*

ROBERT LACY BORGER, Ph.D., *Associate in Mathematics*

ERNEST BARNES LYTLE, Ph.D., *Associate in Mathematics*

JACOB ZEITLIN, Ph.D., *Associate in English*

JOHN MABRY MATHEWS, Ph.D., *Associate in Political Science*

ERNEST WINFIELD BAILEY, M.S., *Associate in Pomology*

DANIEL OTIS BARTO, B.S., *Associate in Poultry Husbandry*

ROYDEN EARL BRAND, M.S., *Associate in Dairy Husbandry*

SOLON JUSTUS BUCK, Ph.D., *Associate in History*



VIRGIL R FLEMING, B.S., *Associate in Theoretical and Applied Mechanics*

AXEL FERDINAND GUSTAFSON, M.S., *Associate in Soil Physics*

HELENA MAUDE PINCOMB, B.S., *Associate in Household Science*

ARTHUR HOWARD SUTHERLAND, Ph.D., *Associate in Psychology*

PAUL HANSEN, B.S., *Associate in Sanitary Engineering and Engineer for the State Water Survey*

WILLIAM LEONIDAS BURLISON, M.S., *Associate in Crop Production*

HAROLD WILSON STEWART, B.S., *Associate in Soil Physics*

ARTHUR JAMES TODD, Ph.D., *Associate in Sociology*

ELMER HOWARD WILLIAMS, Ph.D., *Associate in Physics*

LURENE SEYMOUR, B.S., Ph.B., *Associate in Household Science*

GUSTAF ERIC WAHLIN, Ph.D., *Associate in Mathematics*

STEPHEN OSGOOD ANDROS, A.B., B.S., E.M., *Associate in Mining Engineering*

FREDERICK CHARLES BAUER, B.S., *Associate in Soil Fertility*

SIMEON JAMES BOLE, A.M., *Associate in Pomology*

SLEETER BULL, M.S., *Associate in Animal Nutrition*

ARTHUR FRANCIS COMSTOCK, B.S., C.E., *Associate in Railway Civil Engineering*

WILLIAM TRUMAN CRANDALL, B.S., M.S., *Associate in Milk Production*

NINA BELLE CRIGLER, B.S., *Associate in Household Science*

FLORENCE RISING CURTIS, A.B., B.L.S., *Associate in Library Economy*

JOHN ADLUM DENT, M.E., *Associate in Mechanical Engineering*

IRA WILMER DICKERSON, B.S., *Associate in Farm Mechanics*

CHARLES ELMER DURST, M.S., *Associate in Olericulture*

KARL JOHN THEODORE EKBLAW, M.S., *Associate in Farm Mechanics*

IRA WILLIAM FISK, M.S., *Associate in Electrical Engineering*

NEAL BRYANT GARVER, C.E., *Associate in Civil Engineering*

CORA EMELINE GRAY, M.S., *Associate in Household Science*

WALTER FREDERICK HANDSCHIN, B.S., *Associate in Animal Husbandry*

LEONARD VAUGHAN JAMES, M.S., E.E., *Associate in Electrical Engineering*

ALBERT WOODWARD JAMISON, M.S., *Associate in Agricultural Extension*

WALTER EDWARD JOSEPH, Ph.D., *Associate in Animal Husbandry*

CHARLES FABENS KELLEY, A.B., *Associate in Art and Design*



LEROY LANG, M.S., *Associate in Dairy Manufactures*

\*ARNO HERBERT NEHRLING, *Associate in Floriculture*

FRANCIS MARION PORTER, M.S., *Associate in General Engineering Drawing*

ROBERT KENT STEWARD, C.E., *Associate in General Engineering Drawing*

LESLIE MORTON TURNER, B.L., D.del'Université, *Associate in Romance Languages*

OSCAR S WATKINS, B.S., *Associate in Horticultural Chemistry*

RUTH WHEELER, Ph.D., *Associate in Household Science*

EARL ARCHIBALD WHITE, M.S., *Associate in Farm Mechanics*

ALBERT LEMUEL WHITING, Ph.D., *Associate in Soil Biology*

CARROLL CARSON WILEY, C.E., *Associate in Civil Engineering*

CHARLES HENRY WOOLBERT, A.M., *Associate in Public Speaking and English*

PHILIP SHERIDAN BIEGLER, B.S., *Associate in Electrical Engineering*

### LECTURERS

EDNA LYMAN SCOTT, *Special Lecturer on Library Work for Children*

ALFRED KNIGHT CHITTENDEN, M.F., *Lecturer on Timber and Timber Resources and Assistant to the Director of the Engineering Experiment Station*

GEORGE BENJAMIN RICE, *Lecturer on the Installation and Operation of Mechanical Equipment for Buildings and Assistant Mechanical Engineer in the Office of the Supervising Architect*

WILLIAM ARTHUR CHASE, LL.B., C.P.A., *Lecturer on Accountancy and Commercial Law*

ROGER FRANK LITTLE, A.B., LL.B., *Lecturer on Business Law*

### INSTRUCTORS

DAVID LEONARD SCROGGIN, *Instructor in Machine Shop*

HENRI JACOBUS VAN DEN BERG, *Instructor in Piano*

EDGAR THOMAS LANHAM, *Instructor in Forge Shop*

ALBERT AUSTIN HARDING, *Instructor in Wind Instruments and Director of the University Military Band*

MARY MINERVA WETMORE, *Instructor in Art and Design*

HARRY LOVERING GILL, *Instructor in Track Athletics*

HARRY FREDERICK GODEKE, B.S., *Instructor in Mechanical Engineering*

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\*Resigned, January 31, 1914.

GEORGE WELLINGTON PICKELS, JR., B.C.E., C.E., *Instructor in Civil Engineering*

CHARLES MARSHALL POOR, Ph.D., *Instructor in German*

JOHN GIFFIN THOMPSON, Ph.D., *Instructor in Economics*

FRANK WALKER REED, Ph.D., *Instructor in Astronomy*

GEORGE PAUL BOOMSLITER, B.S., *Instructor in Theoretical and Applied Mechanics*

FLORENCE M KIRKUP, *Instructor in Voice*

CLARENCE EUGENE NOERENBERG, B.S., A.E., *Instructor in Theoretical and Applied Mechanics*

FRED B SEELY, B.S., *Instructor in Theoretical and Applied Mechanics*

CHARLES ALLYN WILLIAMS, Ph.D., *Instructor in German*

HERBERT LE SOURD CREEK, Ph.D., *Instructor in English*

NEWTON EDWARD ENSIGN, A.B., B.S., *Instructor in Theoretical and Applied Mechanics*

HARRISON FREDERICK GONNERMAN, B.S., *Instructor in Theoretical and Applied Mechanics*

ROBERT EDWIN KENNEDY, *Instructor in Foundry*

WILLIAM HORACE RAYNER, B.S., *Instructor in Civil Engineering*

GEORGE DENTON BEAL, Ph.D., *Instructor in Chemistry*

CLARENCE VALENTINE BOYER, Ph.D., *Instructor in English*

HARVEY HERBERT JORDAN, B.S., *Instructor in General Engineering Drawing*

AUBREY JOHN KEMPNER, Ph.D., *Instructor in Mathematics*

DUNCAN ARTHUR MACINNES, Ph.D., *Instructor in Chemistry*

JOHN LYON RICH, Ph.D., *Instructor in Geology*

HAROLD ORDWAY RUGG, C.E., *Instructor in General Engineering Drawing*

GLEN ALFRED SHOOK, A.B., *Instructor in Physics*

WILLIAM HERSCHEL SMITH, M.S., *Instructor in Animal Husbandry*

ELLIS BAYLEY STOUFFER, Ph.D., *Instructor in Mathematics*

RAYMOND EARL DAVIS, B.S., *Instructor in Civil Engineering*

ARMIN HAJMAN KOLLER, Ph.D., *Instructor in German*

JOSEPH HOWARD BEARD, A.M., M.D., *Instructor in Physiology*

EDWARD WILSON CHITTENDEN, Ph.D., *Instructor in Mathematics*

ARTHUR CHARLES COLE, Ph.D., *Instructor in History*

WILLIAM WELLS DENTON, Ph.D., *Instructor in Mathematics*

HERBERT SETON EAMES, B.S., *Instructor in Mechanical Engineering*

JOHN JOSEPH GARDNER, B.S., *Instructor in Pomology*

B SMITH HOPKINS, Ph.D., *Instructor in Chemistry*



- MARVIN EDWARD JAHR, A.B., *Instructor in Farm Mechanics*  
ROBERT TAYLOR JONES, B.S., *Instructor in Architecture*  
JOSEPH MITCHELL KELLOGG, M.Arch., *Instructor in Architectural Design*  
ALLEN HOLMES KIMBALL, M.S., *Instructor in Architectural Design*  
\*FRANK CARLTON LORING, B.S., A.M., *Instructor in Electrical Engineering*  
EDSON WILFRED MORPHY, *Instructor in Violin*  
HORATIO NEWTON PARKER, *Instructor in Milk Distribution*  
CHESTER OTIS REED, B.S., *Instructor in Farm Mechanics*  
LAMBERT THORP, Ph.D., *Instructor in Chemistry*  
ARTHUR JERROLD TIEJE, Ph.D., *Instructor in English*  
LOWELL LESLIE TOWNSEND, A.M., *Instructor in Piano*  
EDNA ALMEDA TREAT, B.Mus., *Instructor in Piano*  
CHARLES GEORGE MACARTHUR, A.M., *Instructor in Physiological Chemistry*  
OLIN HARRIS MOORE, Ph.D., *Instructor in Romance Languages*  
ERNEST JAMES REECE, Ph.B., *Instructor in Library Economy*  
ETHEL BOND, A.B., B.L.S., *Instructor in Library Economy and Assistant in charge of the Collections in Library Economy*  
EDWIN JOHN MANLEY, *Instructor in Swimming*  
FREDERICK KITSON COWLEY, *Instructor in Architecture*  
SAMUEL CHATWOOD BURTON, A.M., *Instructor in Architecture*  
HORACE WHITTIER PEASLEE, B.Arch., *Instructor in Landscape Design*  
HEBER DIGNAM NASMYTH, *Instructor in Voice*  
CLARISSA RINAKER, Ph.D., *Instructor in English*  
HARLEY JONES VANCLEAVE, Ph.D., *Instructor in Zoology*  
STUART JEFFREY BATES, Ph.D., *Instructor in Chemistry*  
HENRY JOHN BRODERSON, Ph.D., *Instructor in Chemistry*  
JOSEPHINE ELIZABETH BURNS, Ph.D., *Instructor in Mathematics*  
MERVIN JAMES CURL, A.M., *Instructor in English*  
EASLEY STEPHEN JONES, A.M., *Instructor in English*  
WALTER BYRON McDUGALL, Ph.D., *Instructor in Botany*  
GERTRUDE SCHOEPPERLE, Ph.D., *Instructor in English*  
QUEEN LOIS SHEPHERD, Ph.D., *Instructor in Philosophy*  
LESLIE DENIS SMITH, Ph.D., *Instructor in Chemistry*  
ANGELO BENEDETTO MARINO CORRUBIA, B.S., M.S., *Instructor in Architecture*  
JAMES HUTCHINSON FORSYTHE, M.Arch., *Instructor in Architecture*

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\*Resigned, December, 1913.



- RUFUS CRANE, A.B., B.S., *Instructor in General Engineering Drawing*
- PHILIP STEPHAN BARTO, Ph.D., *Instructor in German*
- VERNA BROOKS, A.B., *Instructor in Physical Training for Women*
- IRA THOMSON CARRITHERS, A.B., *Instructor in Intramural Athletics*
- ARTHUR BOQUER DOMONOSKE, M.S., *Instructor in Machine Design*
- ELMER TRYON EBERSOL, A.B., B.S., *Instructor in Crop Production*
- ROY NEWTON FARGO, B.S., *Instructor in Physical Training for Men and Director of the Men's Gymnasium*
- FOREST ADDISON FISHER, B.S., *Instructor in Soil Physics*
- GEORGIA ELIZABETH FLEMING, B.S., *Instructor in Textiles*
- LAWRENCE EARL FOGLESONG, B.S., *Instructor in Landscape Gardening*
- \*HUGH GLASGOW, Ph.D., *Instructor in Entomology*
- STELLA MARY HAGUE, Ph.D., *Instructor in Botany*
- FLORENCE HARRISON, B.S., *Instructor in Household Science, in charge of Extension Work*
- ROBERT WILLIAM HOFFMAN, B.S., *Instructor in Landscape Gardening*
- RAY STILLMAN HULCE, M.S., *Instructor in Milk Production*
- RALPH KENT HURSH, B.S., *Instructor in Ceramics*
- JOHN CLARK JORDAN, A.M., *Instructor in English*
- MAUDE EDNA PARSONS, A.B., *Instructor in Household Science and Director of the Lunch Room*
- JOSEPH CULPEPPER PENDLETON, *Instructor in Foundry Work*
- HENRY EUGENE PENGILLY, *Instructor in Fencing*
- VIRGIL AUGUSTUS PLACE, B.S., *Instructor in Animal Husbandry*
- BARNEY S RADCLIFFE, M.S., *Instructor in Ceramics*
- GUSTAV H RADEBAUGH, *Instructor in Machine Work*
- HARRISON AUGUST RUEHE, B.S., *Instructor in Dairy Manufactures*
- CHARLES BOVETT SAYRE, B.S., *Instructor in Olericulture*
- HIRAM THOMPSON SCOVILLE, A.B., *Instructor in Accountancy*
- FRANCIS MARION SIMPSON, B.S., *Instructor in Animal Husbandry*
- FRANK A CUSHING SMITH, B.S., *Instructor in Landscape Design*
- GRACE ESTHER STEVENS, A.B., *Instructor in Household Science*
- CHARLES MANFRED THOMPSON, Ph.D., *Instructor in Economics*
- GEORGE FRISBIE WHICHER, A.M., *Instructor in English*
- HARRY WILLIAM WATERFALL, B.S., *Instructor in Machine Design*
- CHRISTIAN ALBAN RUCKMICH, Ph.D., *Instructor in Psychology*

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\*Resigned, November 30, 1913.

HAROLD EATON BABBITT, B.S., *Instructor in Municipal and Sanitary Engineering*

HARRY GARDNER, M.S., *Instructor in Theoretical and Applied Mechanics*

ALEXANDER VALLANCE, M.E., *Instructor in Theoretical and Applied Mechanics*

CHARLES EARL BRADBURY, B.P., *Instructor in Art and Design*

ABNER RICHARD KNIGHT, M.E., *Instructor in Electrical Engineering*

ROGER SHERMAN LOOMIS, B.Lit., A.M., *Tutor in English*

CHARLES HENRY HECKER, Ph.D., *Instructor in Chemistry*

ANNA VIOLA SIMON, *Instructor in Voice*

ARTHUR GRENVILLE ELDREDGE, *Instructor in Photography and Director of the Photographic Laboratories*

GUSTAVE ADOLPH GROSS, *Instructor in Pattern Making*

CHARLES LESLIE STEWART, A.M., *Instructor in Economics*

\*WARREN HOBART PILLSBURY, B.L., J.D., *Instructor in Law*

LEWIS EMANUEL YOUNG, B.S., E.M., *Instructor in Mining Engineering*

ROBERT DOUGLAS GLASGOW, Ph.D., *Instructor in Entomology*

ROBIN BEACH, B.S., *Instructor in General Engineering Drawing*

ALEXANDER GREEN, Ph.D., *Instructor in German*

GUY G MILLS, B.S., *Instructor in Civil Engineering*

\*CHARLES RUBY MOORE, B.S., *Instructor in Electrical Engineering*

### ASSISTANTS

JAMES MERION DUNCAN, *Assistant in Pattern Making*

SADA ANNIS HARBARGER, A.M., *Assistant in English*

RUTH KELSO, A.M., *Assistant in English*

MARION CHARLOTTE LANDEE, *Assistant in English and Assistant in Physical Training for Women*

ELIZABETH PARNHAM BRUSH, A.M., *Assistant in History*

BESSIE ROSE GREEN, A.M., *Assistant in Zoology*

ALTA GWINN, A.M., *Assistant in English*

ORRIN HAROLD SMITH, A.M., *Assistant in Physics*

JOHN HAMILTON WHITTEN, A.M., *Assistant in Botany*

ROSALIE MARY PARR, A.M., *Assistant in Botany*

PETER JOSEPH REBMAN, *Assistant in Forge Shop*

LLOYD THEODORE JONES, A.M., *Assistant in Physics*

WALTER ALBERT BUCHEN, A.M., *Assistant in English*

OLIVER ARNOLD KELLER, B.S., *Assistant in Dairy Manufactures*

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\*Beginning February 1, 1914.



WILFORD STANTON MILLER, A.M., *Assistant in Education and Secretary of the School of Education*

OSCAR ALAN RANDOLPH, M.S., *Assistant in Physics*

SIDNEY ARCHIE ROWLAND, JR., A.B., *Assistant in Mathematics*

GEORGE RUTLEDGE, A.M., *Research Assistant in Mathematics*

GEORGE WALLACE SEARS, M.S., *Assistant in Chemistry*

FELIX EMIL HELD, A.M., *Assistant in German*

AUGUSTA DILLMAN EVANS, A.B., *Assistant in Agricultural Extension*

ORR MILTON ALLYN, B.S., *Assistant in Crop Production*

WILLIAM HARRY BAIR, B.S., *Assistant in Physics*

REED O'SHEA BRIGHAM, B.S., *Assistant in Botany*

WILBUR JEROME CARMICHAEL, B.S., *Assistant in Animal Husbandry*

FRANK LESLIE FLEENER, A.B., *Assistant in Geology*

JOHN ALEXANDER FRISK, *Assistant in Mechanical Engineering and Mechanician in the Mechanical Engineering Laboratory*

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\*Resigned, February 1, 1914.



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(CONGRESS AND HONORE STREETS, CHICAGO)

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FREDERICK HAMILTON BLAYNEY, A.M., M.D., *Assistant in Clinical Surgery*  
 GEORGE WASHINGTON POST, JR., B.S., A.M., M.D., *Assistant in Clinical Surgery*  
 ROBERT EMMETT FLANNERY, M.D., *Assistant in Clinical Surgery*  
 CHARLES C CLARK, M.D., *Assistant in Clinical Surgery*  
 ELMER W SCHNOOR, M.D., *Assistant in Clinical Surgery*  
 MAX MEYEROVITZ, M.D., *Assistant in Clinical Surgery*  
 ALEXANDER DONALD FERGUSON, M.D., *Assistant in Clinical Surgery*  
 WALTER CHARLES HAMMOND, M.D., *Assistant in Obstetrics*  
 HARRISON WILLIS MALTBY, M.D., *Assistant in Orthopedic Surgery*  
 WILLIAM ARTHUR CLARK, A.M., M.D., *Assistant in Orthopedic Surgery*



EDGAR GRIM MILLER, JR., Ph.D., *Assistant in Physiological Chemistry*

OSCAR GUSTAV FISCHER, M.D., *Assistant in Bacteriology*

METTA MAY LOOMIS, *Librarian*

THOMAS S JONES, *Artist in the Department of Anatomy*

## STUDENT ASSISTANTS

CLAY ADLER, Ph.C., *Student Assistant in Chemistry*

CONRAD GEORGE APPELLE, *Student Assistant in Chemistry*

MAX BRACHVOGEL, *Student Assistant in Physiology*

CHARLES CALVIN CONLEY, *Student Assistant in Chemistry*

JAMES TOBIAS GROOT, *Student Assistant in Chemistry*

ERIC GOSTA HAKENSON, *Student Technician in the Infirmary and Dissecting Room*

BENJAMIN VAUGHN McCLANHAN, *Student Assistant in Physiology*

EMIL GEORGE NADEAU, *Student Assistant in Physiology*

ARTHUR JOHN OCHS, *Student Assistant in Bacteriology*

FRANCIS ALLEN RICHARDSON, A.B., B.S., M.D., *Student Assistant in Chemistry*

CLARA ROUSHAUSEN, *Student Assistant in Bacteriology*

JOSEPH SEILEN, *Student Assistant in Physiology*

J CRAIG SMALL, A.B., *Student Assistant in Physiological Chemistry*

LEO TARKOWSKI, *Student Assistant in the Library of the College of Medicine*



# THE COLLEGE OF DENTISTRY

(HARRISON AND HONORE STREETS, CHICAGO)

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## FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY  
FREDERICK BROWN MOOREHEAD, A.B., D.D.S., M.D., *Professor of Oral Surgery and Pathology and Dean of the College of Dentistry*

DONALD MACKAY GALLIE, D.D.S., *Professor of Operative Dentistry and Operative Technics*

GEORGE WALTER DITTMAR, D.D.S., *Professor of Prosthetic Dentistry and Prosthetic Technics, and Superintendent of the Infirmary*

FREDERICK BOGUE NOYES, B.S., D.D.S., *Professor of Orthodontia and Dental Histology*

EDGAR DAVID COOLIDGE, D.D.S., *Professor of Materia Medica and Therapeutics*

ALBERT CHAUNCEY EYCLESHYMER, B.S., M.D., Ph.D., *Professor of Anatomy*

GEORGE PETER DREYER, A.B., Ph.D., *Professor of Physiology*

LOUIS SCHULTZ, D.D.S., M.D., *Assistant Professor of Oral Surgery and Pathology*

LOUIS E BAKE, D.D.S., *Assistant Professor of Operative Technics and Porcelain Art*

SOLOMON PERRY STARR, D.D.S., *Assistant Professor of Prosthetic Technics*

ELMER DEWITT BROTHERS, LL.B., *Lecturer on Dental Jurisprudence*

HENRY COOLEY LEE, Ph.G., D.D.S., *Instructor in Operative Dentistry and Materia Medica*

FRANK JOSEPH BERNARD, D.D.S., *Instructor in Prosthetic Dentistry*

ARTHUR H HIXSON, B.S., *Instructor in Bacteriology*

JOHN C MCGUIRE, D.D.S., *Instructor in Operative and Prosthetic Dentistry*

WARREN C HAWTHORNE, B.S., *Instructor in Metallurgy*

VERGIL H MOON, M.S., D.D.S., M.D., *Instructor in Histology*

EDGAR GRIM MILLER, M.D., *Assistant in Chemistry*

EDWIN PAUL SWATEK, D.D.S., *Assistant in Oral Surgery*

# THE SCHOOL OF PHARMACY

(MICHIGAN BOULEVARD AND TWELFTH STREET, CHICAGO)

---

## FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY  
WILLIAM BAKER DAY, Ph.G., *Professor of Materia Medica and  
Botany, Acting Dean, and Secretary*

ALBERT HENRY CLARK, Ph.G., *Assistant Professor of Chemistry*

CLYDE MASON SNOW, Ph.G., *Assistant Professor of Pharmacy*

BERNARD FANTUS, M.D., *Lecturer on Physiology*

EDMUND NORRIS GATHERCOAL, Ph.G., *Instructor in Pharmacog-  
nosy*

HENRY WILLIAM COLSON, Ph.C., *Instructor in Chemistry*

BEN LEE EICHER, Ph.C., *Instructor in Pharmacy*



# STANDING COMMITTEES OF THE FACULTY

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## COMMITTEES OF THE SENATE

*Committee on Educational Policy*—Professor Forbes (chairman), Dean Kinley (*ex officio*), Professor E. B. Greene, Professor Mumford, Professor Noyes, Professor Pomeroy, Professor Schmidt

*Committee on Library*—Professor Daniels (chairman), Professor Blair, Professor Carman, Professor Goebel, Professor Sherman, Professor Trelease, Librarian Windsor

*Committee on Athletics*—Professor Parr (chairman), Dean Clark, Professor Goodenough, Director Huff, Professor White

## COMMITTEES OF THE COUNCIL OF ADMINISTRATION

*Committee on Attendance for Men*—Associate Professor Pease (chairman), Assistant Dean Warnock (secretary *ex officio*), Professor Coffey, Dr. Borger, Mr. Noerenberg

*Committee on Attendance for Women*—Assistant Professor Goldthwaite (chairman), Acting Dean Kyle (secretary *ex officio*), Assistant Professor Simpson

*Committee on Discipline for Men*—Dean Clark (chairman *ex officio*), Professor Barton, Professor Decker, Professor Goodenough, Assistant Professor Rankin, Assistant Professor Scott

*Committee on Discipline for Women*—Acting Dean Kyle, (chairman *ex officio*), Director Moulton, Miss Curtis

*Committee on Student Organizations and Activities*—Assistant Professor Watson (chairman), Dean Clark, Acting Dean Kyle, Professor Lloyd, Assistant Professor Schwartz

*Committee on Student Publications*—Assistant Professor Scott (chairman), Assistant Professor Robertson, Mr. Simpson

*Auditing Committee for Student Organizations and Publications*—Assistant Dean Warnock (chairman), Mr. Scovill, Mr. Noerenberg

*Committee on Students' Progress* (membership *ex officio*)—Dean Clark (chairman), Acting Dean Kyle, Assistant Dean Meyer, Assistant Dean Miller, Assistant Professor Rankin, Professor Hale

*Committee on Loan Funds*—Dean Clark (chairman), Assistant Dean Meyer, Assistant Dean Miller

*Committee on the Hospital Association*—Dean Clark

*Committee on Transfer of Credits*—Dean Babcock (chairman), Professor Hollister, Professor Goodenough, Assistant Professor Leutwiler, Dr. Crathorne, Dr. Seymour, Registrar McConn (secretary *ex officio*)

*Committee on Accredited Schools*—Professor Coffman (chairman), Professor Hollister, Assistant Professor Paul, Mr. Jamison, Registrar McConn

*Committee on Appointment of Graduates*—Professor Bagley (chairman), Professor Hollister, Professor Frank Smith

*Committee on Catalog*—Professor Ward (chairman), Professor Alden, Professor Carman, Assistant Professor Scott, Registrar McConn





# PART I

## GENERAL INFORMATION



## LOCATION

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The University of Illinois is situated in Champaign County, about fifty miles northeast of the geographical center of the State. It is 128 miles south of Chicago, 118 miles west of Indianapolis, 164 miles northeast of St. Louis.

The campus of the University lies just within the corporate limits of the city of Urbana and is bounded on the west by the city of Champaign. These two municipalities, locally known as the "Twin Cities," form in fact one community of about twenty-four thousand inhabitants. The city halls of the two towns are about two miles apart, the campus half way between. The railway, express, telegraph, and telephone services of both cities are, therefore, equally available for the University. Mail for the institution itself should be directed to Urbana to insure prompt delivery. The Urbana post-office maintains a sub-station at the University, located in the Library Building.

### URBANA-CHAMPAIGN

The cities of Urbana and Champaign are in the heart of the "Corn Belt" and form the business and social center of a rich farming community.

Both cities are well paved, well drained, and provided with good water supply. In matters pertaining to health, conditions are excellent. There is a hospital within three blocks of the campus, in which students may be cared for at moderate expense.

The University has no dormitories, but the number of boarding houses is large, and there are forty-two residence halls erected by fraternities, sororities, and local clubs. The material needs of the student body are, therefore, provided for.

The moral and religious conditions of the University community are favorable to the welfare of the students. There are thirty churches, representing eleven denominations, and a number of students' religious associations, leagues, and guilds, including strong Young Men's and Young Women's Christian Associations.

Under a special State law, the liquor traffic has been barred from all territory within a radius of four miles from the University.



## RAILWAY CONNECTIONS

The University is connected with neighboring cities in Illinois, including Bloomington, Danville, Decatur, Peoria, and Springfield, and also with St. Louis, by the electric interurban lines of the Illinois Traction System. It will shortly be connected by other interurban lines with Kankakee and Chicago.

It may be reached from Chicago and the north and from points in the south by the Illinois Central Railroad (time from Chicago by express trains, three hours and ten minutes), being on the direct line from Chicago to Cairo and New Orleans. It is joined to the east and the west by the Peoria & Eastern Division of the "Big Four" Route (Cleveland, Cincinnati, Chicago, and St. Louis Railway), as well as by the division of the Wabash Railway which connects Kansas City and St. Louis with Detroit and Buffalo. It is also reached from the west by the Havana branch of the Illinois Central Railroad and from Decatur by another branch of the same system.

The time from New York by way of the Wabash and "Big Four" routes is twenty-six hours, by way of Chicago and the Illinois Central, twenty-four hours. Washington and Philadelphia are about equally distant in time. Pittsburg, Buffalo, Kansas City, and Omaha may be reached in fifteen, fourteen, thirteen, and seventeen hours respectively.

The station of the Illinois Central Railroad is in Champaign. The Wabash and "Big Four" have stations in both Champaign and Urbana. These several stations are each a little more than a mile distant from the University campus. There are several hotels in Champaign and Urbana within easy reach of the University, the Beardsley in Champaign and the Columbian in Urbana being the largest.

## HISTORY

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### 1862. *The Morrill Land Grant*

By this act the national government donated to each state in the Union public land scrip, in quantity equal to 30,000 acres for each senator and representative in Congress, "for the endowment, support, and maintenance of at least one college, whose leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanical arts, \*

\* \* \* in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

On account of this grant the State pays the University, semi-annually, interest at the rate of five per cent on about \$610,000 and deferred payments on land contracts amounting approximately to \$35,000.

### *Location chosen*

To secure the location of the University several counties entered into competition by proposing to donate to its use specified sums of money or their equivalent. Champaign County offered a large brick building in the suburbs of Urbana, erected for a seminary and nearly completed, about 1,000 acres of land, and \$100,000 in county bonds. To this the Illinois Central Railroad added \$50,000 in freight.

### 1867. *Incorporation*

The institution was incorporated February 28, 1867, under the name of the Illinois Industrial University. It was placed under the control of a Board of Trustees, consisting of the Governor, the Superintendent of Public Instruction, and the President of the State Board of Agriculture, *ex officio* members, and twenty-eight citizens appointed by the Governor. The chief executive officer was called the Regent, and was made an *ex officio* member of the Board and the presiding officer of both the Board of Trustees and the Faculty. (See also 1873 and 1887 below.)



*1867. Dr. Gregory Regent*

On March 12, 1867, John Milton Gregory, LL.D., was elected Regent of the University. On May 7, 1867, Dr. Gregory accepted the position and entered upon his duties. He served as Regent until September 1, 1880.

*1868. The University opened*

The University opened on March 2, 1868. The number of students enrolled was about fifty; the faculty consisted of the Regent and two professors. During the first term another instructor was added, and the number of students increased to 77—all young men.

During the first term instruction was given in algebra, geometry, physics, history, rhetoric, and Latin. Work on the farm and gardens or about the buildings was at first compulsory for all students. In March of the next year, however, compulsory labor was discontinued, save when it was to serve as a part of instruction.

*1868-9. The first laboratories*

During the autumn of 1868 a chemical laboratory was fitted up; and laboratory work in botany was begun the following year.

*1870. Pioneer shop instruction*

In January, 1870, a mechanical shop was fitted up with tools and machinery, and here was begun the *first shop instruction* given in any American university. In the summer of 1871 the Wood Shops and Testing Laboratory (burned on June 9, 1900) were erected and equipped for students' shop work in both wood and iron.

*1870. Women admitted*

On March 9, 1870, the Trustees voted to admit women as students. In the year 1870-71 twenty-four availed themselves of the privilege. Since that time they have constituted from one-sixth to one-fifth of the total number of students.

*1873. First reorganization of the Board of Trustees*

At this time the number of members was reduced from thirty-one (see 1867 above) to eleven—the Governor and the President of the State Board of Agriculture, *ex officio*, and nine others, who were still appointed by the Governor. Beginning at this time also, the President of the Board has been chosen by the members from among their own number for a term of one year. (See also 1887 below.)



*1877. Authority to confer degrees received*

According to the original State law, the usual diplomas and degrees could not be granted by the University; certificates showing the studies pursued and the attainments in each were given instead. The certificates proved unsatisfactory to the holders, and in 1877 the legislature gave the University authority to confer degrees and issue diplomas.

*1880-81. Dr. Peabody Regent*

In June, 1880, Regent Gregory's resignation was accepted to take effect September 1, 1880, and Selim Hobart Peabody, A.B., Ph.D., Professor of Mechanical Engineering and Physics, was made Regent *pro tempore*. At the next annual meeting, in March, 1881, he was elected Regent.

*1885. Change of name*

In this year the General Assembly changed the name of the institution from the *Illinois Industrial University* to the *University of Illinois*.

*1885. The State Laboratory of Natural History transferred to the University*

See page 494.

*1887. Second reorganization of the Board of Trustees*

In 1887 a law was passed making membership in the Board elective, at a general State election, and restoring the Superintendent of Public Instruction as an *ex officio* member. There are now, therefore, three *ex officio* and nine elective members. (For the previous organization of the Board see 1867 and 1873 above.)

*1887. The Agricultural Experiment Station established at the University.*

See page 490.

*1890. Additional Federal endowment*

In 1890 the Congress of the United States made further appropriations for the endowment of the institutions founded under the act of 1862. Under this enactment each such college or university received the first year \$15,000, the second year \$16,000, and in each succeeding year a sum larger by \$1,000 than the amount of the preceding year, until the amount reached \$25,000; this sum was to be paid yearly thereafter.

*1891. Dr. Burrill Acting Regent*

In June, 1891, Regent Peabody's resignation was accepted, to take effect September 1, and in August Thomas Jonathan Burrill, A.M., Ph.D., Professor of Botany and Horticulture, was appointed Acting Regent. Dr. Burrill served in this capacity until September, 1894.

*1892. The Graduate School*

Beginning with this year, graduate work was undertaken under the name of the Graduate School, but without the organization of a separate faculty.

*1894. The Summer Session*

The first Summer Session of the University was authorized by a vote of the Trustees on March 13, 1894, and was opened in June of that year.

*1894. Dr. Draper President*

On April 13, 1894, Andrew Sloan Draper, LL.D., was elected Regent. He accepted May 10, 1894. On August 1 his title was changed to President. Dr. Draper entered upon his duties at the beginning of the school year 1894-95. He served until June, 1904.

*1896. The School of Pharmacy*

On May 1, 1896, the Chicago College of Pharmacy, founded in 1859, became the School of Pharmacy of the University of Illinois.

*1897. The College of Medicine*

Negotiations looking to the affiliation of the College of Physicians and Surgeons of Chicago with the University, which had been going on for several years, were concluded by the Board of Trustees March 9, 1897. Accordingly, the College of Physicians and Surgeons became, on April 21, 1897, the College of Medicine of the University of Illinois. (The College of Medicine was discontinued on June 30, 1912, but was re-opened on February 12, 1913.)

*1897. The School of Music*

By vote of the Trustees on June 9, 1897, the department of music, which had been reorganized and enlarged in 1895, was erected into the School of Music, with a separate faculty and organization.

*1897. The State Water Survey authorized*

See page 496.



*1897. The Library School*

In 1897 the School of Library Economy, which had been established in 1893 at the Armour Institute of Technology in Chicago, was transferred to the University, the Director of that school was appointed Librarian of the University Library, and the Library School was opened.

*1897. The College of Law*

Pursuant to an action of the Board of Trustees, taken December 8, 1896, the School of Law was organized, and was opened September 13, 1897. The course of study covered two years, in conformity with the then existing requirements for admission to the bar of Illinois. In the following November, however, the Supreme Court of the State announced rules relating to examinations for admission to the bar which made three years of study necessary, and the course of study in the Law School was immediately rearranged on that basis. On February 9, 1900, the name of the School of Law was changed, by vote of the Board of Trustees, to *College of Law*.

*1899. The State Entomologist's Office permanently established at the University*

See page 495.

*1900. Courses in Business Administration*

In 1900 the General Assembly made an appropriation for the establishment of courses of training for business life, and, in accordance with that action, the Trustees approved the organization of the Courses in Business Administration.

*1901. The College of Dentistry*

In accordance with an action taken by the Board of Trustees on March 12, 1901, a School of Dentistry was organized as a department of the College of Medicine. The School was opened October 3, 1901. The name was changed to *College of Dentistry* on April 27, 1905. (The College of Dentistry was discontinued on June 30, 1912, but was re-opened on October 1, 1913.)

*1903. The Board of Examiners in Accountancy created*

See page 499.

*1903. The Engineering Experiment Station established*

See page 491.

*1904. Dr. James President*

On March 8, 1904, President Draper's resignation was accepted, to take effect July 1. On August 23, 1904, Edmund Janes



James, Ph.D., LL.D., was elected President. He accepted on August 26, 1904, and entered upon his duties in the fall of that year.

*1905. The School of Education*

By a vote of April 27, 1905, the Board of Trustees established the School of Education, to provide for the professional training of teachers.

*1905. The State Geological Survey established*

See page 497.

*1906-7. The School of Railway Engineering and Administration*

On January 30, 1906, the Board of Trustees created in the College of Engineering a department of railway engineering; on January 22, 1907, supplementing that action, it established the School of Railway Engineering and Administration.

*1906-7. The Graduate School organized as a separate faculty*

The General Assembly appropriated \$50,000 for the Graduate School, and the Executive Faculty of that school was organized.

*1909. A Mine Rescue Station established at the University*

See page 500.

*1911. The Mill Tax*

The General Assembly passed a law providing that in the year 1912, and annually thereafter, the proceeds of a tax of one mill for each dollar of the assessed valuation of the taxable property of the State should be set apart as a fund for the maintenance of the University.

*1912. The Colleges of Medicine and Dentistry discontinued*

The Colleges of Medicine and Dentistry were discontinued on June 30, 1912.

*1913. The Colleges of Medicine and Dentistry reopened*

On February 12, 1913, the Board of Trustees accepted the gift of the capital stock of the College of Physicians and Surgeons, donated to the University by the alumni and other friends of medical education in Chicago, and the College of Medicine was reopened.

The College of Dentistry was reopened on October 1, 1913.

*1913. The College of Liberal Arts and Sciences*

In this year the College of Literature and Arts and the College of Science were united to form the College of Liberal Arts and Sciences.

# EQUIPMENT

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## BUILDINGS AND GROUNDS

The land occupied by the University and its several departments embraces 225 acres, besides a farm of 855 acres. There are at the present time some forty-five buildings on the campus.

### LIBERAL ARTS GROUP

*University Hall* (erected 1873) is the "old main building" of the University. It occupies three sides of a quadrangle, and is five stories in height. It is devoted to class rooms and offices.

*Lincoln Hall* (erected 1911) has a frontage of 230 feet. The exterior is brick, stone, and terra cotta. This building provides for the advanced work of the departments of the classics, English, Romance languages, Germanic languages, history, economics, political science, sociology, and philosophy. The first three floors provide, in addition to the ordinary class and consultation rooms, seminar libraries and conference rooms. On the fourth floor are research rooms and two museums, the Museum of Classical Art and Archeology, and the Museum of European Culture.

*The Commerce Building* (erected 1912) is a fire-proof building three stories high, 153 feet on the front and 60 feet deep, with a one-story annex containing a lecture room 48 feet square. The building has a total floor area of about 29,000 square feet and is to house the work in business administration with its various class rooms, offices, and laboratories. The exterior first story finish is buff Bedford stone; the second and third stories are of brick with carved stone trimmings and cornice. The roof is of tile, and the interior trim is of dark oak throughout.

### GENERAL SCIENCE GROUP

*Natural History Hall* (old part erected 1892; addition 1909) is the largest building on the campus, covering a ground area 135 feet by 275 feet. It is occupied by the departments of botany, entomology, zoology, physiology, geology, and mathematics, together with the offices and equipment of the State Geological Survey, and the



State Natural History Survey, and the office of the State Entomologist. The offices of the President, the Registrar, and the Dean of Men, and the Business Office, are also housed in this building. A fireproof museum 51 feet by 63 feet in size, equipped with fireproof and dustproof cases, occupies the center of the building.

*The Laboratory of Physics* (erected 1909) is a three-story fireproof brick building trimmed with Bedford limestone. The length is 178 feet and the depth of the wings is 125 feet. The large lecture room has a seating capacity of two hundred sixty-two. A one-story annex, 78 by 28 feet, contains the ventilating and heating fans and the machine shop of the department. The total available floor area, exclusive of the basement, is about 60,000 square feet. The large laboratories and the recitation rooms are mostly in the west wing. The east wing is of heavy construction and contains about 30 smaller laboratories for advanced experimental work. The blue print department of the University occupies rooms on the top floor of the building. Gas, distilled water, compressed air and vacuum, and direct and alternating electric currents of a wide range in amperes and in volts are available in all parts of the building.

*The Chemical Laboratory* (erected 1901-2) is a three-story building, the ground plan of which is shaped like the letter E. The extreme dimensions are 230 feet along the front and 116 feet along the wings. The middle rear wing contains the lecture amphitheater, which seats 350. The end wings contain the general laboratories. The central part of the building is occupied by offices, museum, class and seminar rooms, supply rooms, and a number of special rooms for research work. There is a basement, which contains the ventilating plant and rooms for assaying and metallurgy. In this building are located also the general office and laboratories of the State Water Survey.

*The Astronomical Observatory* (erected 1896) is a brick building with extreme dimensions of 75 by 55 feet. It has three wings and is surmounted by a dome 25 feet in diameter.

*The Ceramics Laboratory* (erected 1910) is a two-story brick building in which are provided a general laboratory, plaster room, pottery room, rough grinding room, machine room, drawing room, library, recitation rooms, chemical laboratory, and office. (See also the Mining and Ceramics Laboratory under "Engineering Group" below.)



*The Entomology Building*, for the use of the State Entomologist and his staff, is a two-story building 48 by 20 feet, with basement storerooms, and with two insectary wings of greenhouse construction, each 25 by 20 feet. It contains the office of horticultural inspection, a stenographer's room, rooms for the assistant inspectors and insectary assistants, and a large fireproof vault. The glass-covered wings are equipped for experimental entomology and life-history studies.

#### ENGINEERING GROUP

*Engineering Hall* (erected 1894) is a four-story building, with a frontage of 200 feet, a depth of 76 feet on the wings and 138 feet on the center, and a floor area of 47,000 square feet. The first and second floors are occupied by the offices, the recitation rooms, and the instrument and drafting rooms of the departments of civil engineering and municipal and sanitary engineering. The engineering lecture room, on the second floor, has a seating capacity of two hundred twenty-five. The third floor is occupied by the offices of the Dean of the College of Engineering and Director of the Engineering Experiment Station and by the office, recitation, and drafting rooms of the department of mechanical engineering. A portion of the third floor and all of the fourth floor is occupied by the department of architecture.

*The Electrical Engineering Laboratory* (erected 1898) is a two-story brick building with floor area of 18,000 square feet. The basement contains the departmental shop, the storage battery room, the electric furnace room, and rooms for electrical research. The first floor contains the undergraduate laboratory, the instrument room, the high potential laboratory, and the drafting, lecture, and recitation rooms. The second floor contains the photometric laboratory, the offices, the departmental library, and a room used by the Electrical Engineering Society.

*The Mechanical Engineering Laboratory* (erected 1905) is a brick building with a frontage of 120 feet, a total depth of 182 feet, and a floor area of 24,000 square feet. The front section is two stories high, and contains offices, lecture and computation rooms, and an instrument room. Back of this are three bays. The middle bay is provided with a concrete testing floor and a 10-ton three-motor traveling crane of 38-foot span. The north bay contains a 5-ton traveling crane and is used for laboratory work in connection with the departments of civil engineering and theoretical and applied mechanics.

*The Laboratory of Applied Mechanics* (erected 1901-2) is a brick building having a floor area of 16,000 square feet. The front part contains the materials testing laboratory, and the rear wing contains the hydraulics laboratory.

*The Mining and Ceramics Laboratory* (erected 1912) is a one-story building with a floor area of 11,200 square feet. It contains a kiln room for the department of ceramics having an area of 4,300 square feet, a mining engineering laboratory of 3,600 feet area, and a chemical laboratory for the department of mining engineering. There are also offices and class rooms for the department of ceramics and a Mine Rescue Station equipped with Yeager helmets and arranged for training men in the methods of mine rescue work.

*The Locomotive Testing Laboratory* (erected 1912) is a fire-proof building with brick walls 117 feet long and 42 feet wide, connected by a spur with the Illinois Traction System tracks. It houses a locomotive testing plant, which consists of supporting wheels on which rest the drivers of the locomotive to be tested, a dynamometer to which the locomotive drawbar is attached, and which measures the tractive force exerted by the locomotive, water brakes for absorbing the power developed by the locomotive, and other auxiliary apparatus. The exhaust gases pass through a "transite" (or asbestos board) duct to a large fan which forces them through a reinforced concrete cinder separator; the separator removes the cinders and discharges the gases into the air through a brick stack eight feet in height.

*The Transportation Building* (erected 1912) is a three-story fire-proof building of brick trimmed with stone. The general dimensions of the building are 65x189 feet and the total floor area is 34,225 square feet. The first and second floors of the building are occupied by the departments of railway and mining engineering, and the third floor is occupied by the department of general engineering drawing.

*The Metal Shops* (erected 1902) occupy a one-story brick building, with a floor area of 12,000 square feet, containing a lecture room, two office rooms, a machine shop, and a forge shop. The machine shop is 48 by 140 feet. Power is supplied by a 20 horsepower electric motor. A three-ton traveling crane of 12 foot span covers the center of the floor for the entire length.

*The Wood Shop* (erected 1901-2) and the *Foundry* (added 1904) occupy a brick building which has a floor area of 16,000 square



feet. The part of the building devoted to the wood shop contains a bench room, lathe room, machine room, and various smaller rooms for lectures, exhibition purposes, etc. The part devoted to the foundry has a molding floor, 35x80 feet, traversed by a 5-ton traveling crane, and a basement room for the storage of materials.

#### AGRICULTURAL GROUP

*The Agricultural Building* (erected 1900) consists of four separate structures, built around a court and connected by corridors. The main building, three stories in height, contains offices, class rooms, and laboratories for the departments of agronomy, animal husbandry, dairy husbandry, horticulture, and veterinary science; the chemical laboratory of the Experiment Station; administration rooms; and an assembly room (Morrow Hall) with a seating capacity of 500. The other three buildings are two stories high; one is for dairy manufactures, one for farm crops, and one for veterinary science and stock judging. These buildings are of stone and brick, roofed with slate, and contain 113 rooms and a total floor space of about two acres. An adjacent glass structure serves the departments of agronomy and horticulture. There are, in addition to these buildings, three dwellings, three barns, and a greenhouse.

*The Agronomy Building* (erected 1904-5) is 50 by 100 feet in size, of brick and slate, trimmed with stone. It contains a field laboratory for crop work in which yields of experimental plats are studied, sample seeds stored, and specimens preserved.

*The Farm Mechanics Building* (erected 1906-7) is a three-story brick structure containing class rooms, offices, lecture rooms, drafting room, library, laboratories, and tool and storage rooms. The third floor, which is reached by an elevator, furnishes storage room for the greater part of \$16,000 worth of farm machinery loaned the College by various manufacturing companies and used for laboratory work. The facilities afforded by this building, with its equipment, make possible the assembling, testing, and adjusting of all the important machines used in farm operations.

*The Stock Pavilion* (erected 1913) is a fireproof building 54 feet high on the front and 148 feet deep with circular ends 92 feet in diameter and 20 feet high. The total ground area is 30,000 square feet, and the show arena is 216 feet long and 65 feet wide. Seats of concrete provide accommodations for 2000. Arrangements are to be made providing for a division of the arena into three parts giving three separate judging rooms for instructional purposes. The



building also contains class rooms and offices. Stabling will be provided in a separate structure. The exterior is of brick and terra cotta, renaissance in design, the frieze being enriched with medallions of animals' heads.

*The Animal Husbandry Cattle Feeding Plant* has a capacity for feeding 150 steers at a time. It consists of open and closed sheds with paved lots adjoining, with a storage barn 44 by 72 feet and an experimental silo.

*The Beef Cattle Building* (erected 1904-5) is a one-story structure of brick and slate, trimmed with stone, 217 feet across the front, with a wing at either end 33 by 49 feet; the central portion rises two stories and is used for the storage of feed. Other portions of the building are used as quarters for the breeding herd, and will accommodate about 100 head of cattle.

*The Sheep Barn* is a wooden structure consisting of a main barn 36 by 90 feet, and a shed, opening to the south, 25 by 100 feet in size. A 6-foot aisle, lined by pens on each side, runs through the center of the barn. This building besides accommodating the University flock is used for experimental work. Its location and construction insures dry footing and ample light and ventilation throughout the year.

Other buildings for the accommodation of live stock are the horse barn, the piggery, and two large barns on the South Farm.

*The Experimental Dairy Barns* (erected 1912) comprise a round barn 70 feet in diameter with a reinforced concrete silo in the center, a semi-detached rectangular structure 40 by 70 feet with a Grout silo adjacent, and a small dairy house and shop 26 by 32 feet. The barns are of frame construction on brick walls with solid floors of the mill type of construction, and contain feed rooms, hay lofts, and other accommodations for the experimental dairy herd. The dairy house is of frame construction, two stories in height, and contains office, shop, coal room, dairy room, and four sleeping rooms for employees.

*The Horticulture Building* (erected 1904-5) is a structure of brick and slate trimmed with stone, approximately 50 by 100 feet in size. It is used as a field laboratory for horticultural tests, and contains sorting rooms, storage rooms, and a laboratory for the mixing of spraying materials and other operations in connection with the horticultural work.

*The Horticulture Greenhouse Group* (erected 1912-13) includes (1) a floricultural group and (2) a vegetable and plant breeding group.

(1) *The Floriculture Greenhouse Group* (erected 1912-13) consists of a two-story and basement service building 93 by 37 feet, and the following glass structures: four houses each 105 by 28 feet, three houses each 105 by 35 feet, one corridor house 139 by 10 feet, one storage house 50 by 12 feet, and a palm house 80 by 40 feet. The service building is of hollow tile and cement construction, and contains laboratories, lecture room, herbarium room, offices, and seminar room, as well as potting, storage, and work rooms.

(2) *The Vegetable and Plant Breeding Greenhouse Group* (erected 1912-13) consists of a glass house for vegetable growing 105 by 28 feet, two houses for plant breeding each approximately 80 by 30 feet, a wire house 80 by 30 feet, and a two-story and basement service building 82 by 36 feet, containing laboratories, work rooms, class rooms, offices, and storage rooms. The type of construction of this building is the same as that of the floriculture service building.

#### LAW BUILDING

*The Law Building* (erected 1878; remodeled 1902 and 1912) is the second oldest building in the University group. It has two stories and a basement. The upper floor contains the Law Library, the students' conference room, the private offices of the members of the law faculty, and the Moot Court Room, a model court room with a seating capacity of four hundred. On the main floor are the recitation rooms, the Dean's offices, and the faculty room. In the basement are the lockers, the students' reading room, and a court room for the Law Clubs.

#### BUILDINGS FOR GENERAL UNIVERSITY USE

*The Library Building* (erected 1896-7) is modern Romanesque in style, is built of Minnesota sandstone, and measures 167 by 113 feet, with a tower 132 feet high. The first floor, or basement, contains the rooms of the catalog and order departments, the bound newspapers, and the University Station Postoffice. The second, or main floor, contains the general reference room, the periodical reading rooms, a small conference room, and the delivery room, which opens into the second story of the stack. The third floor contains the study room, lecture rooms, and office of the Library School, faculty study room, and the office of the librarian and assistant



librarian. The five-story book stack is a rear wing to the building, separated from it by a fireproof wall. The delivery room is open to the roof and is lighted by a dome of art glass; the lunettes are decorated with frescoes symbolic of the four older colleges of the University—Literature and Arts, Science, Agriculture, and Engineering.

*The Auditorium* (erected 1907-8) is a brick and stone building for general meeting purposes. It contains an auditorium seating about 2,200 and a memorial vestibule. All general University exercises, including convocations and the commencement gatherings, are held in this building.

*The Men's Gymnasium* (erected 1901) is a three-story building of stone and pressed brick, 100 by 150 feet. On the first floor there is a swimming pool, 26 feet wide, 75 feet long, and 8 feet deep at the lower end, lined with white enamel bricks. This floor contains, also, the general locker room, which is fitted up with all-metal lockers, and with shower bath, and steam baths; rooms for the University athletic teams; a room for visiting teams; a special dressing room for members of the faculty; and offices for the physical director and the instructors in athletics. The entire second floor is one large room, which is fitted up with all the modern appliances for gymnastic exercises. The third floor contains an elevated running track, 15 laps to the mile, which is properly banked on the turns to secure the greatest speed and comfort in running.

*The Armory* (erected 1889-90) has a clear floor space of 15,000 square feet in one hall. It is equipped with racks for 1,200 stands of arms. An annex provides for two pieces of field artillery.

*The New Armory* (under construction 1913-14) comprizes a drill room with a clear area 200x400 feet and a height of 98 feet at the center, the roof being carried by fourteen three-hinged steel arches. The sides are of hollow tile and the ends, supported by columns, are of steel, glass, tile, and concrete with wood frames and sashes. The drill floor is of sufficient area to permit the maneuvering of an entire battalion of the cadet regiment. Provision has been made for the addition of a balcony around the drill floor with seats for 3000 and for the addition of three-story facades along the sides, flanked by towers at each end. This will provide space for company rooms, lockers rooms, shooting tubes, and class rooms.

*The Woman's Building* (erected 1905) is in the New England colonial style of architecture, of reddish brown brick, with white stone trimmings. The central part of the structure is the woman's

gymnasium. On the lower floor there are a swimming tank, lockers, dressing rooms, and baths. The upper floor is devoted to the main gymnasium, which is 92 by 50 feet. The north wing of the building is given to the department of household science, and the south wing provides rooms for the social life of the women students. The addition to the Womans' Building (erected 1912) is a three-story fireproof building with basement. It is 200 feet long on the front and 83 feet on each connecting wing, having 43,000 square feet of floor area. It has a large colonade with towers on the front and two smaller colonades on the north and south of the inner court. The addition is similar to the old building in finish and supplements the working space of the departments using it. It has two halls for literary societies and a modern flat on the upper floor, and an institutional kitchen and large dining room on the second floor. There are also offices for the Dean of Women and the Director of the Courses in Household Science, laboratories, social rooms, and space for the expansion of gymnasium work.

#### THE PRESIDENT'S HOUSE

*The President's House* (erected 1896) is a three-story frame building, in the colonial style. The first story is designed primarily for entertaining; large reception and dining parlors are so arranged as to open together into a central corridor. The second and third stories provide library and living rooms.

#### SERVICE BUILDINGS

*The Central Heat and Power Plant* (erected 1902; addition 1910) is 55 by 120 feet. It contains boilers aggregating 1,800 horse-power. A supplemental boiler and power plant, designed ultimately to carry the load of the present station, is equipped with boilers of 1,000 horse-power. These two stations furnish steam for heating and power to all buildings on the campus. A power plant containing a 250-kilowatt Allis-Chalmers direct connected steam engine and dynamo, a 125-kilowatt direct connected Westinghouse engine and generator, and a 100-kilowatt Curtiss turbo-generator, together with the accessories necessary to a complete power station, supplies current for light and power to all parts of the grounds. The pipe-lines of the heating system and the circuits for distributing electricity are carried from the central plant to the several buildings through brick and concrete tunnels and clay and concrete conduits. Altogether there are now 6,275 feet of tunnels and 3,800 feet of conduit for the distribution of steam and 7,000 feet of



conduit for the distribution of electricity. The new boiler and power plant provides temporary quarters for the electric test car of the department of railway engineering.

*The Pumping Station* of the University water-works is a brick building, 38 by 73 feet, connected with the central heating station. Four 8-inch wells, 145 feet deep, and one 12-inch well, 148 feet deep, supply the University with water. A masonry reservoir provides for a fire-reserve supply. The pumps, tanks, and connections are arranged to give opportunities for experimental work, and also to vary the working conditions in the adjacent hydraulics laboratory. In this building is kept the equipment of the University fire department, including an electric automatic hose and chemical wagon.

### LABORATORIES

Twenty-six departments of the University are equipped with laboratories. The following list shows the buildings in which these are located:

#### GENERAL SCIENCE LABORATORIES

Botany—Natural History Hall  
Ceramics—Ceramics Laboratory  
Chemistry—Chemical Laboratory  
Entomology—Natural History Hall  
Geology—Natural History Hall  
Physics—Laboratory of Physics  
Physiology—Natural History Hall  
Psychology—University Hall  
Zoology—Natural History Hall

#### ENGINEERING LABORATORIES

Cement—Mechanical Engineering Laboratory  
Electrical engineering—Electrical Engineering Laboratory  
Founding—Wood Shop  
Forging—Metal Shops  
Hydraulics—Laboratory of Applied Mechanics  
Locomotive—Locomotive Laboratory  
Machine Construction—Metal Shops  
Materials testing—Laboratory of Applied Mechanics  
Mechanical engineering—Mechanical Engineering Laboratory  
Mining—Mining Engineering Laboratory  
Roads—Mechanical Engineering Laboratory  
Wood Working—Wood Shop

SPECIAL RESEARCH LABORATORIES

|                                             |                       |
|---------------------------------------------|-----------------------|
| <i>Agricultural Experiment Station—</i>     | Agricultural Building |
| Bacteriological laboratory                  |                       |
| Chemical laboratory                         |                       |
| Physical laboratory                         |                       |
| <i>Geological department—</i>               | Natural History Hall  |
| Laboratory of economic geology              |                       |
| <i>State Entomologist's Office—</i>         | Natural History Hall  |
| <i>State Laboratory of Natural History—</i> | Natural History Hall  |
| <i>State Water Survey—</i>                  | Chemical Laboratory   |
| Laboratory for sanitary water analysis      |                       |

MUSEUMS AND COLLECTIONS

COLLEGE OF LIBERAL ARTS AND SCIENCES

*Liberal Arts Group*

*Art.*—A collection of casts, photographs, and engravings presented to the University in 1876 by citizens of the community has, for want of a suitable gallery, been placed in different buildings on the campus. Eight large statues are in the auditorium foyer. Numerous pieces of this collection are now in the studios of the department of art and design in University Hall, and others are used to decorate the corridors and class rooms of University Hall, Natural History Hall, and the Library. A collection of eighty-one German and Japanese prints purchased by the department of art and design from the St. Louis Exposition in 1905 is displayed in the rooms of the department of art and design.

Other collections of value to art students, consisting of a number of casts of Moorish, Spanish, and German ornament and miscellaneous casts, models, prints, and drawings, are placed in the studios and corridors of the department of art and design.

*Classical Archeology and Art.*—This museum is located in Room 402 Lincoln Hall, and contains casts of important works of Greek and Roman sculpture; miscellaneous originals and models of Egyptian, Greek, and Roman antiquities; about 1,500 Babylonian tablets; and over 1,100 mounted photographs of historic sites and archeological remains in Greece, Italy, and other parts of the ancient world. Over 1,100 slides belonging to the department of the classics are also available for illustrative purposes. The museum is open on Sunday, Monday, Wednesday, and Friday afternoons.

*Commerce.*—For its courses in industrial economics and commerce the University has a working collection of the materials of



commerce; a lantern and several hundred slides; political and industrial maps; and diagrams and stereoscopic views illustrating various phases of commerce and industry. Most of the articles constituting the commercial museum are the gift of the Philadelphia Commercial Museum.

*Education.*—In Room 437 Lincoln Hall is a collection of illustrative material from the manual training departments of various schools; photographs of school buildings; drawings and constructive work by pupils in the public schools; and the nucleus of a representative collection of apparatus for the school laboratory. It is planned to gather here particularly materials that are illustrative of the development of public schools in Illinois.

*European Culture.*—The Museum of European Culture is in the north wing of Lincoln Hall. The collection consists of casts of Romanesque, Gothic, and Renaissance art, models of early weapons and armor, facsimiles of miniatures and types of writing from medieval manuscripts, replicas of seals, reproductions of runic inscriptions, of early ivory carving, of musical instruments, etc. The museum is open on Sunday, Monday, Wednesday, and Friday afternoons.

#### *Science Group*

*Botany.*—The *herbarium* contains about 65,000 mounted specimens of plants. The flowering plants of North America are fairly well represented; the collection of species of such plants indigenous to Illinois is practically complete; and a collection of foreign species has been made. The collection of fungi amounts to 32,000 named specimens, and includes those most injurious to other plants, causing rusts, moulds, etc., and many valuable sets of published collections.

*Entomology.*—The entomology collections of the University include an elementary reference series of 6,400 specimens, representing 1,600 common species; and the Bolter collection, donated to the University by the executors of the estate of the late Andreas Bolter, of Chicago, which now contains about 120,000 specimens representing over 16,000 species. The department has access, also, to the insect collections of the State Laboratory of Natural History, which contain 315,000 pinned insects and 23,000 vials and bottles of specimens in alcohol, mainly from Illinois.

*Geology.*—The geology collections are to be found in the Natural History Building. *Lithology* is represented by type collections of rocks aggregating 9,000 specimens; 1,000 thin sections of rocks and

minerals; ornamental building stones; a stratigraphic collection to illustrate Illinois geology; a collection of Illinois soils (104), and one of polished marbles, granites, and other ornamental stones. The *mineralogy collection* is rich in rock-forming minerals, ores, and materials of economic value. It contains over 12,000 specimens; 575 crystal models; and a collection of gems and precious stones. The *paleontology collection* (49,000 specimens) contains representative fossils from the entire geologic series, but is especially rich in paleozoic forms. It embraces the private collections of A. H. Worthen (including 742 type specimens); Tyler and McWhorter; Hertzner; the greater part of the collections made by the Geological Survey of the state under Worthen; 200 thin sections of corals and bryozoa; the Ward collection of casts; and special collections representing the fauna and flora of particular groups. In September, 1913, a collection of marine and fresh water shells that had belonged to the late A. H. Worthen was presented to the Museum by Mrs. Thomas A. Worthen. This collection includes about 3,000 specimens.

*Zoology.*—The zoology collections have been specially selected and prepared to illustrate the courses of study in zoology and to present a synoptical view of the zoology of the State. Most of them are placed in the new museum room in the Natural History Building, and in adjacent corridors. The mounted mammals include a collection of the ruminants of the United States and representatives of the other orders of Mammalia except the Sirenia. The same orders are also represented by mounted skeletons.

The collection of mounted birds includes representatives of all the orders and families of North America, together with a number of characteristic tropical, Bornean, and New Zealand forms. The collection is practically complete for Illinois species. There is also a collection of the nests and eggs of Illinois birds.

In June, 1913, Mr. M. K. Barnum and Major M. H. Barnum presented the Museum with a collection of 2,000 birds' eggs in original sets, representing about 300 species.

The cold-blooded vertebrates are represented by a series of mounted skins of larger species, both terrestrial and marine; mounted skeletons of typical representatives of the principal groups; alcoholic specimens; and casts. The alcoholics include series of the reptiles, amphibians, and fishes, the latter comprising about 300 species. The casts represent about seventy-five species, nearly all fishes.



The Mollusca are illustrated by alcoholic specimens of all classes and orders, and dissections showing the internal anatomy of typical forms. There are several thousand shells, belonging to more than 2,000 species. The collection of the Illinois aquatic species is nearly complete.

The lower invertebrates are represented by several hundred dried specimens and alcoholics, and by a series of Blaschka glass models.

The embryology of vertebrates and invertebrates is illustrated by several sets of Ziegler wax models and series of sections and other preparations.

In addition to the foregoing, the collections of the State Laboratory of Natural History are available for illustrative purposes, as well as for original investigation by advanced students.

#### COLLEGE OF ENGINEERING

*Architecture.*—The collections of the department of architecture include plaster casts of architectural detail and ornament; 9,400 lantern slides of architectural subjects and 900 slides of painting and sculpture; 20,000 classified plates, photographs, and 2,400 stereoscopic views; a working library of about 1,800 volumes on architecture and the allied arts; a collection of 300 examples of American woods, shown in three sections each; and collections of architectural drawings and of specimens of building materials, fittings, and appliances.

*Civil Engineering.*—The department of civil engineering has samples of iron, steel, wood, brick, and stone; materials for roads and pavements; models of arches and trusses. The department also possesses a collection of photographs and blue-print working drawings of bridges, metal skeleton buildings, masonry structures, standard railroad construction, etc.

*Electrical Engineering.*—This department has a collection of samples illustrating standard practise in the industrial applications of electricity. There is also a growing collection of lantern slides, photographs, blue-prints, drawings, pamphlets, and other engineering data.

*Mechanical Engineering.*—This department includes in its equipment part of a set of Reuleaux models; models of valve gears; sections of steam pumps; injectors; valves, skeleton steam and water gauges; standard packings; steam-pipe coverings; and drop forgings. There are also examples of castings, perforated metal, defective boiler plates, and set of drills, with samples of oil, iron,

and steel. A number of working drawings from leading firms form a valuable addition to these collections.

*Mining Engineering.*—This department has a complete exhibit of sized coal as prepared by typical Illinois washeries, the raw materials and the finished products illustrating the briquetting of coal, models of a metalliferous mine and of timber and steel mine supports, a complete exhibit of explosive and blasting materials and appliances, the Draeger, Fleuss, and Westphalia breathing apparatus, and all of the appliances necessary for mine rescue and first aid demonstration, a collection of safety-lamps and other mine-lighting devices, and working drawings and photographs of mine machinery.

*Railway Engineering.*—The department of railway engineering has an unusually complete exhibit of photographs illustrating the development in transportation; an exhibit showing the progress in the design and manufacture of rails; models of locomotive valve gears; a full-sized model of the front end of a Richmond compound locomotive; and sets of working drawings of locomotives, cars, and other railway equipment.

#### COLLEGE OF AGRICULTURE

The various agricultural departments maintain collections illustrative of their work; prominent among which are those showing typical specimens of standard varieties of corn; wax models of fruit and vegetables; a horticulture herbarium; specimens of breeds of live stock; a collection of farm machinery; and exhibits of negatives and samples showing the progress of certain investigations, especially with fruit, crops, and soils.

See further the description of the facilities for instruction and methods of work of the departments of agronomy, animal husbandry, dairy husbandry, and horticulture, pages

#### LIBRARY SCHOOL

The School has made a collection of books and pamphlets on library science; of library reports and catalogs; of mounted samples showing methods of administration in all departments; of labor-saving devices and fittings; and of photographs and lantern slides illustrating the history of books and libraries.

#### LIBRARIES

(For the Library Staff see page 41.)

The University Library includes all the books belonging to the colleges and schools of the University which are situated in Urbana



and also the libraries of the College of Medicine and School of Pharmacy in Chicago.

On January 1, 1914, the several libraries contained the following numbers of bound volumes and pamphlets:

|                                                          | Volumes | Pamphlets |
|----------------------------------------------------------|---------|-----------|
| General library, including departmental collections..... | 251,000 | 28,000    |
| State Laboratory of Natural History library .....        | 8,100   | 30,000    |
| State Geological Survey library.                         | 1,500   | 4,000     |
| College of Medicine library.....                         | 15,150  | .....     |
| Pharmacy library .....                                   | 2,500   | .....     |

The Library receives about 2,000 serial publications.

The Library is housed, for the most part, in the Library building, and is for the use of the whole University. The officers of instruction and administration of the University, the graduate students, and the members of the senior class have direct access to the shelves; other students may have this privilege upon the recommendation of their instructors. All students have the direct use of 10,700 volumes in the reading rooms, and in addition graduate students have the use of the seminar libraries.

As a part of the Library are included several special collections: *The University of Illinois collection*, including printed material illustrating the history of the University: about 300 volumes. *College Publications collection*, comprising the catalogs, announcements, reports, studies, etc., of other educational institutions: about 5,000 volumes. *Thesis collection*, a complete file of the original copies of the theses presented for graduation from the University of Illinois; they are bound and filed by years: 2,000 volumes. *The Collection of School Reports*, a carefully cataloged collection of school reports, courses of study, and other documents published by public school authorities throughout the United States. *The Dziatzko collection of Library Economy*, bought in 1905, the entire library of Karl Dziatzko, librarian of Göttingen University: 300 volumes, 250 pamphlets. *The Dittenberger Collection of the Classics*, bought in 1907, the entire library of Wilhelm Dittenberger, professor of Classical Philology in the University of Halle: 5,600 items. *The Heyne collection*, purchased by the University in 1909, the philological library of Professor Moritz Heyne, of the University of Göttingen: about 5,000 items, principally on German phil-

ology and literature. *The Karsten collection*, principally on French and German philology and literature, the library of the late Professor Gustaf E. Karsten, presented by Mrs. Eleanor G. Karsten. *The Gröber collection*, purchased in 1912, the entire library of the late Professor Gustav Gröber, of Strasburg: 6,300 titles, principally on the Romance languages. *The Vahlen collection*, purchased in 1913, the entire classical library of the late Professor Johannes Vahlen, of Berlin: 10,000 volumes. *The Aron collection*, purchased in 1913, the pedagogical library of the late Dr. R. Aron, of Berlin: 20,000 volumes.

A number of seminar and departmental collections are maintained in various buildings on the campus, including the six seminars in Lincoln Hall; most of these are primarily reference collections for the use of graduate students and advanced undergraduate students in the departments using the respective buildings. The principal departmental libraries and reading rooms are the following:

| <i>Name of library</i>                | <i>Location</i>          | <i>Number of volumes</i> |
|---------------------------------------|--------------------------|--------------------------|
| Philosophy, Psychology, and Education | Lincoln Hall             | 9,900                    |
| Classics                              | Lincoln Hall             | 9,950                    |
| Modern languages                      | Lincoln Hall             | 19,600                   |
| English                               | Lincoln Hall             | 9,500                    |
| History and Political Science         | Lincoln Hall             | 17,600                   |
| Economics and Sociology               | Lincoln Hall             | 17,000                   |
| Natural History                       | Natural History Building | *18,300                  |
| Law                                   | Law Building             | 15,000                   |
| Commerce Reading Room                 | Commerce Building        | 400                      |
| Architecture                          | Engineering Building     | 3,090                    |
| Agriculture Reading Room              | Agricultural Building    | 300                      |
| Chemistry                             | Chemistry Building       | 4,520                    |
| Physics                               | Physics Building         | 940                      |
| Mathematics                           | Natural History Building | 3,150                    |

*Mason Library of Western History.* The library of western history collected by Edward G. Mason, Esq., long president of the Chicago Historical Society, is in the Public Library of the city of Champaign, and is accessible to students in the University.

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\*Including the State Laboratory collection.



## LIBRARY REGULATIONS

The General Library is primarily for free reference use; any citizen of the State may use the books in the general reading rooms. The privilege of drawing books for use outside the building is accorded to all officers of instruction and government, to all registered students, and to other accredited persons. Books not reserved for classes may be borrowed for home use for two weeks and may be renewed for two weeks more if not specially restricted or called for. All books are subject to recall at any time when needed for university work.

General reference books, books reserved for classes, all general periodicals, and certain other groups of books are to be consulted in the reading rooms only. They may not be loaned from the Library except when the reading rooms are closed. They must then be returned by the time the Library next opens.

Books from the stack which are not returned on time are subject to a fine of two cents a day. Books from the reference, reserve, and periodical shelves, as well as some special collections, are subject to a fine of twenty-five cents for the first hour and five cents for each additional hour if kept overtime. Books recalled for university work must be returned at once upon receipt of the notice. If not returned within two days after notice is mailed a fine of twenty-five cents a day is charged. All books lost or damaged must be replaced or paid for. Books not at the time needed in Urbana, or not subject to special restrictions, may be loaned for a limited period to other libraries in the State, for the use of serious students.

*Hours of Opening.* The General Library is open week days during the general sessions of the University, from 7:45 a. m. to 10 p. m., and on Sundays from 2 p. m. to 6 p. m. During the Summer Session, the Library is open from 7:45 a. m. to 10 p. m. on week days, but is not open on Sundays. During the summer vacation, the Library is open from 9 a. m. to 12 m. Permits may be given for use at other hours. The Library is regularly closed on New Year's, Independence, Labor, Thanksgiving, and Christmas days. The hours of opening of the departmental libraries differ somewhat from those given above.

# ADMINISTRATION

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## GOVERNMENT

The government of the University is vested by law primarily in a Board of Trustees, consisting of twelve members. The Governor of the State, the Superintendent of Public Instruction, and the President of the State Board of Agriculture are members *ex officio*. The other nine members are elected by the people of the State for terms of six years; the terms of three members expire every second year.

The administration of the University is vested by the Board of Trustees in the President of the University, the Senate, the Council of Administration, the Faculties of the several colleges, and the Deans of the colleges and Directors of the schools.

The President is the administrative head of the University.

The Senate is composed of the full professors and those other members of the faculty who are in charge of separate departments of the various colleges and schools. It is charged with the direction of the general educational policy of the University.

The Council of Administration is composed of the President, the Dean of the Graduate School, the Deans of Men and Women, and the Deans of the several colleges. It constitutes an advisory board to the President, and has exclusive jurisdiction over all matters of discipline. The Council does not determine educational policy; but when any matter arises which has not been provided for by common usage or by rule of the Senate and cannot be conveniently laid over until the next meeting of the Senate, the Council may act upon the same according to its discretion.

The Faculties of the colleges and schools of the University, composed of the members of the corps of instruction of these colleges and schools, have jurisdiction, subject to higher University authority, over all matters which pertain exclusively to these organizations.

The Dean of the Graduate School, the Deans of the several colleges, and the Directors of the schools are responsible for the carrying out of all University regulations within their respective departments.



## DEPARTMENTS AND COURSES

For the purpose of administration, the University is divided into several colleges and schools. These are not educationally separate, but are interdependent and form a single unit.

The colleges and schools are as follows:

- I. The College of Liberal Arts and Sciences
- II. The College of Engineering
- III. The College of Agriculture
- IV. The Graduate School
- V. The Library School
- VI. The School of Music
- VII. The School of Education
- VIII. The School of Railway Engineering and Administration
- IX. The College of Law
- X. The College of Medicine
- XI. The College of Dentistry
- XII. The School of Pharmacy

*The College of Liberal Arts and Sciences* offers courses in—

1. Philosophy and arts, including—
  - (a) The ancient classical languages
  - (b) The Romance languages
  - (c) The Germanic languages
  - (d) The English language and literature, including rhetoric
  - (e) Mathematics
  - (f) The political and social sciences—
    - History
    - Economics
    - Political science
    - Sociology
  - (g) Philosophical subjects—
    - Philosophy
    - Psychology
    - Education
  - (h) Art and design
2. General Science, affording opportunity to specialize in:
  - (a) Astronomy
  - (b) Geology, including mineralogy
  - (c) Physics
  - (d) Chemistry

- (e) Ceramics
- (f) Botany, including bacteriology
- (g) Zoology
- (h) Entomology
- (i) Physiology

By the grouping of certain subjects students in this College are also offered opportunities for specific vocational and professional training as follows:

1. Business administration
  - (a) General business
  - (b) Secretarial service
  - (c) Banking
  - (d) Accountancy
  - (e) Railway administration—
    - Railway traffic and accountancy
    - Railway transportation
  - (f) Insurance
  - (g) Commercial teaching
2. Teaching and school administration
3. Journalism
4. Chemistry
5. Chemical engineering
6. Ceramics
7. Ceramic engineering
8. Household science and household administration
9. Library administration
10. Law (combined course)
11. Medicine (combined course)
12. Engineering (combined course)

*The College of Engineering* offers courses in—

1. Architecture
2. Architectural engineering
3. Civil engineering
4. Electrical engineering
5. Mechanical engineering
6. Mining engineering
7. Municipal and sanitary engineering
8. Railway civil engineering
9. Railway electrical engineering
10. Railway mechanical engineering



*The College of Agriculture* offers courses in—

1. Agronomy
2. Horticulture, floriculture, and landscape gardening
3. Animal husbandry
4. Dairy husbandry
5. Veterinary science
6. Household science
7. Agricultural extension
8. Teachers' course

*Military science* and *physical training* are provided in all the undergraduate colleges in Urbana.

*The Graduate School* offers courses in—

- Philology, including the classical languages, Romance languages, Germanic languages, and English
- Mathematics
- Political and social sciences, including history, economics, sociology, and political science
- Philosophy, including psychology and education
- Physical sciences, including physics, chemistry, astronomy, and geology
- Biology, including botany, zoology, entomology, and physiology
- Engineering, including architecture, architectural engineering, civil engineering, electrical engineering, mechanical engineering, mechanics, mining engineering, municipal and sanitary engineering, and railway engineering
- Agriculture, including agronomy, animal husbandry, dairy husbandry, floriculture, horticulture, and thremmatology
- Household science

*The Library School* offers a professional course of two years in preparation for the work of the librarian, leading to the degree of Bachelor of Library Science. Graduation from a college or university of approved standing is required for admission to the Library School.

*The School of Music* offers courses in vocal and instrumental music, leading to the degree of Bachelor of Music; and provides training in public school methods in music.

*The School of Education* enrolls, at the beginning of the junior year, students already registered in other colleges of the University who are preparing to teach, and directs their work for the remaining two years.

*The School of Railway Engineering and Administration* offers courses of study leading to the degree of Bachelor of Science in railway civil, railway electrical, and railway mechanical engineering; and also courses in railway transportation and in railway traffic and accountancy leading to the degree of Bachelor of Arts.

*The Courses in Business Administration* virtually constitute a school of commerce. They include courses in social and industrial economics, accountancy, banking, and railway administration, leading to the degree of Bachelor of Arts.

*The College of Law* offers a course of three years leading to the degree of Bachelor of Law. One year of college work in an institution of approved standing is required for admission to the College of Law.

Students holding the bachelor's degree in arts or science may become candidates in this College for the degree of Doctor of Law (J.D.).

*The College of Medicine* offers a course of four years leading to the degree of Doctor of Medicine; and, in conjunction with the College of Liberal Arts and Sciences, a course of six years, leading to the two degrees of Bachelor of Arts and Doctor of Medicine.

*The College of Dentistry* offers a three-year course leading to the degree of Doctor of Dental Surgery.

*The School of Pharmacy* offers courses in the branches necessary to a scientific and practical knowledge of pharmacy, including pharmacy, chemistry, materia medica, botany, physics, and physiology. The courses lead to the degrees of Graduate in Pharmacy and Pharmaceutical Chemist.

*The Summer Session*, of eight weeks, offered in 1913 courses in accountancy, agricultural education, art and design, botany, chemistry, drawing (general engineering), economics, education, English, entomology, French, German, history, household science, Latin, library science, manual training, mathematics, mechanical engineering, mechanics (theoretical and applied), microscopical technique, music, physical training for men and for women, physics, political science, psychology, rhetoric, sociology, and zoology.

All the courses given in the Summer Session are of collegiate grade and may be counted toward the bachelor's degree. Certain advanced courses may be counted toward the master's degree.



# ADMISSION

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## GENERAL STATEMENT

An applicant for admission to any of the colleges or schools of the University must be at least sixteen years of age. Candidates for admission to the College of Dentistry must be eighteen and for the School of Pharmacy (Chicago) must be seventeen years of age.

Women are admitted to all departments under the same conditions and on the same terms as men.

Students may be admitted at any time, but should enter if possible at the beginning of the fall semester (in 1914, September 23) or at the beginning of the spring semester (in 1915, February 10). Students can seldom enter the College of Engineering to advantage except at the opening of the school year in September.

The entrance requirements for the undergraduate departments, including the colleges of Liberal Arts and Sciences, Engineering, and Agriculture, and the School of Music, amounting in each case to 15 units of high school work, are stated in detail immediately below.

*The College of Law* requires, in addition to 15 units of high school credit, one year of college work in arts, letters, and science in an institution having standards equal to those of the University of Illinois. For 1915-16 and thereafter two years of college work will be required. (See page 270).

*The Library School* requires a bachelor's degree in arts, letters, or science from an institution having standards equal to those of the University of Illinois. (See page 231.)

*The College of Medicine (Chicago)* requires, in addition to 15 units of high school credit, two years (60 semester hours) of college work in an institution having standards equal to those of the University of Illinois. (See page 281.)

*The College of Dentistry (Chicago)* requires an applicant for admission to present a certificate of graduation from an accredited

high school or the equivalent; which equivalent is interpreted to mean 15 units of preparatory work in an accredited high school or academy or a state normal school. (See page 296.)

*The School of Pharmacy (Chicago)* requires for admission to its shorter course, leading to the degree of Graduate in Pharmacy, two years of high school work or the full educational equivalent; and for admission to its longer course, leading to the degree of Pharmaceutical Chemist, graduation from an accredited high school or the equivalent. (See page 302.)

## ENTRANCE REQUIREMENTS OF THE UNDERGRADUATE COLLEGES

An applicant for admission to any one of the undergraduate departments—including the colleges of Liberal Arts and Sciences, Engineering, and Agriculture, and the School of Music—must offer credit for fifteen (15) units of high school or other secondary school work, so chosen as to include:

I. Those subjects *prescribed alike by all the undergraduate departments* (see *List A* below).

II. Certain subjects *prescribed in addition by the individual department* which the student wishes to enter.

III. Enough *electives* to make up the required total of 15 units.

A *unit* is the amount of work represented by the pursuit of one preparatory subject, with the equivalent of five forty-minute recitations a week, through 36 weeks; or, in other words, the work of 180 recitation periods of forty minutes each, or the equivalent in laboratory or other practise.

### I. UNITS PRESCRIBED BY ALL THE COLLEGES (LIST A)

Of the 15 units required, the following  $5\frac{1}{2}$  units, constituting *List A*, are *prescribed* for admission to the freshman class in *all* the undergraduate colleges of the University, and no substitutes are accepted.

#### *List A. Units Prescribed by All the Colleges*

|                          |                |       |
|--------------------------|----------------|-------|
| English composition..... | 1              | unit  |
| English literature.....  | 2              | units |
| Algebra .....            | $1\frac{1}{2}$ | units |
| Plane geometry .....     | 1              | unit  |

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Total, List A.....  $5\frac{1}{2}$  units



## II. ADDITIONAL PRESCRIPTIONS OF INDIVIDUAL COLLEGES

Of the  $9\frac{1}{2}$  units that remain, certain others are *prescribed* for admission by *individual colleges*, and in each case no substitutes are accepted by the college in question. These additional prescriptions are as follows:

*Units Prescribed in Addition by Individual Colleges*

For courses in Literature and Arts in the College of Liberal Arts and Sciences:

|                                      |         |
|--------------------------------------|---------|
| History .....                        | 1 unit  |
| Foreign languages <sup>1</sup> ..... | 3 units |

Sciences:

For the courses in Science<sup>2</sup> in the College of Liberal Arts and Science .....

2 units

For the College of Engineering:

Solid and spherical geometry..... $\frac{1}{2}$  unit

Physics .....

1 unit

For the College of Agriculture:

Science .....

2 units

For the School of Music:

History .....

1 unit

Foreign languages<sup>3</sup>.....

3 units

Music .....

2 units

## III. ELECTIVES

The remainder of the required 15 units—after those *prescribed* (1) by all the colleges, and (2) by the individual college desired, have been counted—must be made up from the subjects in *Lists B* and *C* below. For courses in literature and arts in the College of Liberal Arts and Sciences, only two units from List C may be offered. For the Colleges of Engineering and Agriculture and for courses in science in the College of Liberal Arts and Sciences three units from List C are accepted. No subject is accepted for an amount less than the minimum, or greater than the maximum, mentioned in the lists. For a description of the subjects required and accepted for admission see page 108.

<sup>1</sup>At least two of these must be in the same language. Three units in Latin must be presented if the student wishes to pursue the study of that subject in the University.

<sup>2</sup>Two years of German are prescribed (as well as two units in science) for admission to the course in *chemical engineering* in the College of Liberal Arts and Sciences.

<sup>3</sup>At least two of these units must be in the same language.

*List B. Electives*

|                                    |                 |                         |
|------------------------------------|-----------------|-------------------------|
| Astronomy .....                    | 18 weeks        | $\frac{1}{2}$ unit      |
| Botany .....                       | 18 or 36 weeks  | $\frac{1}{2}$ or 1 unit |
| Chemistry .....                    | 36 weeks        | 1 unit                  |
| Civics .....                       | 18 or 36 weeks  | $\frac{1}{2}$ or 1 unit |
| Commercial geography .....         | 18 weeks        | $\frac{1}{2}$ unit      |
| Drawing .....                      | 18 or 36 weeks  | $\frac{1}{2}$ or 1 unit |
| Economics .....                    | 18 weeks        | $\frac{1}{2}$ unit      |
| English literature (3rd unit)..... | 36 weeks        | 1 unit                  |
| French .....                       | 36 to 144 weeks | 1 to 4 units            |
| Geology .....                      | 18 or 36 weeks  | $\frac{1}{2}$ or 1 unit |
| Geometry, solid and spherical..... | 18 weeks        | $\frac{1}{2}$ unit      |
| German .....                       | 36 to 144 weeks | 1 to 4 units            |
| Greek .....                        | 36 to 108 weeks | 1 to 3 units            |
| History .....                      | 36 to 108 weeks | 1 to 3 units            |
| Latin .....                        | 36 to 144 weeks | 1 to 4 units            |
| Physics .....                      | 36 weeks        | 1 unit                  |
| Physical geography .....           | 18 or 36 weeks  | $\frac{1}{2}$ or 1 unit |
| Physiology .....                   | 18 or 36 weeks  | $\frac{1}{2}$ or 1 unit |
| Spanish .....                      | 36 to 72 weeks  | 1 to 2 units            |
| Trigonometry .....                 | 18 weeks        | $\frac{1}{2}$ unit      |
| Zoology .....                      | 18 or 36 weeks  | $\frac{1}{2}$ or 1 unit |

*List C.<sup>1</sup> Limited Electives*

|                                    |                |                    |
|------------------------------------|----------------|--------------------|
| Agriculture .....                  | 36 to 72 weeks | 1 to 2 units       |
| Bookkeeping .....                  | 36 weeks       | 1 unit             |
| Business law .....                 | 18 weeks       | $\frac{1}{2}$ unit |
| Domestic science .....             | 36 weeks       | 1 unit             |
| Manual training <sup>2</sup> ..... | 36 to 72 weeks | 1 to 2 units       |

## SUMMARY BY COLLEGES

The requirements listed above may be summarized by colleges as follows:

*For Courses in Literature and Arts in the College of Liberal Arts and Sciences:*

I. List A (prescribed by all the colleges).....  $5\frac{1}{2}$  units

<sup>1</sup>The subjects named in List C must be taught in accordance with specifications which are set forth in the High School Manual. Further information may be had on application to the High School Visitor.

<sup>2</sup>In giving credit for manual training the University specifies that the work is to be done by competent teachers, as determined by inspection, and that credit shall not exceed one unit for 360 forty-minute periods of work, including the necessary drawing and shop work.



- II. Special prescriptions for these courses—  
     History ..... 1 unit  
     Foreign languages (see foot-note 1, page 90) 3 units  
 III. Electives (not more than 2 units from List C)...  $5\frac{1}{2}$  units  


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 15 units

*For Courses in Science in the College of Liberal Arts and Sciences:*

- I. List A (prescribed by all the colleges).....  $5\frac{1}{2}$  units  
 II. Special prescription for these courses—  
     Science<sup>3</sup> ..... 2 units  
 III. Electives (not more than 3 units from List C)...  $7\frac{1}{2}$  units  


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 15 units

*For the College of Engineering:*

- I. List A (prescribed by all the colleges).....  $5\frac{1}{2}$  units  
 II. Special prescriptions by this college—  
     Solid and spherical geometry.....  $\frac{1}{2}$  unit  
     Physics ..... 1 unit  
 III. Electives (not more than 3 units from List C).. 8 units  


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 15 units

*For the College of Agriculture:*

- I. List A (prescribed by all the colleges).....  $5\frac{1}{2}$  units  
 II. Special prescription by this college—  
     Science ..... 2 units  
 III. Electives (not more than 3 units from List C)..  $7\frac{1}{2}$  units  


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 15 units

*For the School of Music:*

- I. List A (prescribed by all departments).....  $5\frac{1}{2}$  units  
 II. Special prescriptions by this school—  
     History ..... 1 unit  
     Foreign languages (see foot-note 3, page 90). 3 units  
     Music ..... 2 units  
 III. Electives (not more than 3 units from List C)..  $3\frac{1}{2}$  units  


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 15 units

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<sup>3</sup>See also the College of Liberal Arts and Sciences, foot-note 2 on page 90.

## METHODS OF ADMISSION.

The credits required for admission to the undergraduate departments, as detailed above, may be secured:

- (a) By examination.
- (b) By certificate from an accredited high school or other secondary school.
- (c) By transfer from another university or college of recognized standing.

## (A) ADMISSION BY EXAMINATION

## I. THE UNIVERSITY ENTRANCE EXAMINATIONS

The University entrance examinations are given at the University in Urbana (in Room 228, Natural History Building) three times in each year: in September, immediately before the opening of the fall semester; in February, shortly before the opening of the spring semester; and in July, during the Summer Session.

These examinations cover all the subjects required or accepted for admission, as outlined in the "Description of Subjects Accepted for Admission" on pages 108 to 117.

For programs of these three sets of examinations for 1914-15 see pages 98 to 100.

## II. THE EXAMINATIONS OF THE COLLEGE ENTRANCE EXAMINATION BOARD

The certificate of the College Entrance Examination Board, showing a grade of 60 per cent. or higher, will be accepted for admission in any subject in the lists on pages 89 to 91, in the amounts there specified as being acceptable. These examinations will be held during the week of June 15-20, 1914.

All applications for examination must be addressed to the Secretary of the College Entrance Examination Board, Post Office Sub-Station 84, New York, N. Y., and must be made upon a blank form to be obtained from the Secretary of the Board upon application.

Applications for examination at points in the United States east of the Mississippi River, and also at Minneapolis, St. Louis, and other points on the Mississippi River, must be received by the Secretary of the Board at least two weeks in advance of the examinations; that is, on or before Monday, June 1, 1914; applications for examination elsewhere in the United States or in Canada must be received at least three weeks in advance of the examinations; that is, on or before Monday, May 25, 1914; and applications for examination outside of the United States and Canada must be re-



ceived at least five weeks in advance of the examinations; that is, on or before Monday, May 11, 1914.

Applications received later than the dates named will be accepted when it is possible to arrange for the admission of the candidate concerned, but only upon the payment of \$5.00 in addition to the usual fee.

The examination fee is \$5.00 for all candidates examined at points in the United States and Canada, and \$15.00 for all candidates examined outside of the United States and Canada. The fee (which cannot be accepted in advance of the application) should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

A list of the places at which examinations are to be held by the Board in June, 1914, will be published about March 1. Requests that the examinations be held at particular points, to receive proper consideration, should be transmitted to the Secretary of the Board not later than February 1.

### III. THE NEW YORK REGENTS' EXAMINATIONS

Credits will be accepted, also, from the examinations conducted by the Regents of the University of the State of New York.

#### (B) ADMISSION BY CERTIFICATE FROM AN ACCREDITED PREPARATORY SCHOOL

Blank certificates for students wishing to enter the University *by certificate* from an accredited high school or academy may be had of the Registrar. They should be obtained early and should be filled out and sent in to the Registrar for approval as soon as possible after the close of the high school year in June. Certificates received at the University after September 17 (in 1914) will be held until the arrival of the student unless such certificates are accompanied by an addressed envelope with a special delivery stamp.

#### ACCREDITED SCHOOLS

The High School Visitor of the University visits and inspects on request high schools and other preparatory schools throughout the State. On the basis of his reports, approved by the Committee on Accredited Schools and by the Council of Administration, the University accredits all work which is found to be sufficiently well done. For a list of Accredited Schools, correct to January 1, 1914, see page 101. Not all the schools named in this list, however, are accredited for the same amount of work nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named

therein *for which the said school is specifically accredited as shown in the certificate of its accredited relation issued to the school by the University.*

Entrance credits will also be accepted on certificate from the following sources:

1. From schools accredited by the North Central Association of Colleges and Secondary Schools.
2. From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.
3. From the state normal schools of Illinois and other state normal schools having equal requirements for graduation.
4. From schools approved by the New England College Entrance Certificate Board.

#### FOREIGN STUDENTS

Candidates for admission who come from foreign countries should bring complete official credentials. Certificates from oriental countries should be accompanied by certified translations. Upon arriving at the University foreign students should consult with the Adviser to Foreign Students, Room 214, Lincoln Hall.

#### EXAMINATION IN RHETORIC I

Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric I may be excused from the first semester's work. An examination to test such proficiency will be given at 7:00 p. m., on the first day of registration (in 1914, September 21). The results of this examination will be announced the following morning. Students who try this examination should defer their registration until they learn whether or not they have passed in the examination.

#### (C) ADMISSION BY TRANSFER OF ENTRANCE CREDITS FROM OTHER COLLEGES OR UNIVERSITIES

A person who has been admitted to another college or university of recognized standing will be admitted to this University upon presenting a certificate of honorable dismissal from the institution from which he comes and an official statement of the subjects upon which he was admitted to such institution, provided it appears that the subjects are those required here for admission by examination or real equivalents. No substitutes will be accepted for the subjects *prescribed* for all colleges or by individual colleges as indicated above (pages 89, 90).



For admission to advanced standing by transfer of college credits see page 98 below.

Students intending to transfer to the University of Illinois should send an official statement of their college credits, accompanied by a summary of their preparatory work and by a letter of honorable dismissal, to the Registrar as early in the summer as possible.

### CONDITIONED FRESHMEN

A student who lacks not more than 2 of the 15 units required for matriculation may be entered as a conditioned freshman, provided the deficiencies are not in work which should precede the prescribed courses of the first semester, and provided that all his entrance conditions are such as can be made up during his first year.

A conditioned student is not matriculated and must pay a tuition fee of \$7.50 a semester in addition to the regular incidental fee of \$12.00 a semester.

No student having entrance conditions may register for a second year in the University, except on the recommendation of the faculty of the college or school in which he is enrolled, approved by the Council of Administration. Only in rare and especially meritorious cases will such permission to continue as a conditioned student be granted.

### ADMISSION AS SPECIAL STUDENTS

Persons over twenty-one years of age may be admitted as special students, provided they secure (1) the recommendation of the professor whose work they wish to take, and (2) the approval of the dean of the college concerned. They must give evidence that they possess the requisite information and ability to pursue profitably, as special students, their chosen subjects, and must meet the special requirements of the particular colleges in which they wish to enroll, as stated below.

A special student is not matriculated and must pay a tuition fee of \$7.50 a semester in addition to the regular incidental fee of \$12.00 a semester.

No one may enroll as a special student in any school or college of the University for more than two years, except by special permission, application for which must be made through the dean of the college.

A person registered as a special student in one college and desiring to take a course in another college of the University must obtain the approval of the dean of the latter college.

## SPECIAL REQUIREMENTS OF PARTICULAR COLLEGES

*The College of Liberal Arts and Sciences* requires a written application, accompanied by official certificates, indicating the character and extent of the applicant's preparatory work, and showing honorable dismissal from the school last attended. In order that action may be taken on such applications before registration they should be presented at least one week before the beginning of the semester.

*The College of Engineering* requires that applicants for admission as special students shall satisfy the entrance requirements in mathematics and English (one and one-half years of algebra, one year of plane geometry, one-half year of solid geometry, one year of English composition, and two years of English literature).

*The College of Agriculture* will receive non-matriculants twenty-one years old or over, provided that if deficient in English as measured by the requirements for matriculation they shall arrange to carry English as one subject until that deficiency is made good; and provided further, in the case of men, that they shall have had at least two years of experience in practical agriculture.

*The Library School* requires a written application, accompanied by official certificates, indicating the character and extent of the applicant's preparatory and college work and showing honorable dismissal from the institution last attended. In order that action may be taken on such applications before registration they should be presented not later than one week before the beginning of the academic year.

It is the practise of this School to admit as special students only those mature persons who, tho unable to meet the formal requirements for entrance, are substantially prepared for thoro and advanced work. Such persons must present evidence of possessing the requisite information and ability to pursue the chosen subjects profitably, and some substitute for the regular requirements for entrance, such as approved library or teaching experience, foreign travel, etc. Preference will be given to those already engaged in library work, especially in Illinois, who may desire more adequate training in particular subjects.

## ADMISSION TO ADVANCED STANDING

After matriculation, an applicant may secure advanced standing either by examination or by transfer of credits.

1. *By examination.*—Advanced standing is granted only by examination unless the applicant is from an approved school.



2. *By transfer of credits.*—Credits may be accepted for advanced standing from another university or college of recognized standing, from a state normal school, or from an approved high school (not more than the equivalent of one unit unless the high school course exceeded four years in length). An applicant for advanced standing by transfer must present a certified record of work done in the institution from which he comes, accompanied (except in cases of transfer from high schools) by a letter of honorable dismissal. Students intending to transfer to the University of Illinois should send their credentials to the Registrar as early in the summer as possible.

#### PROGRAMS OF UNIVERSITY ENTRANCE EXAMINATIONS

The University entrance examinations are given at the University in Urbana (in Room 228, Natural History Building) three times in each year: in September, immediately before the opening of the fall semester; in February, shortly before the opening of the spring semester; and in July and August, during the Summer Session.

The scope of these examinations is indicated in the "Description of Subjects Accepted for Admission," pages 108 to 117.

Admission to the examinations is by permit. Permits may be obtained of the Registrar, 321 Natural History Building.

##### ENTRANCE EXAMINATIONS, JULY, AUGUST, 1914

|                                                       |                           |
|-------------------------------------------------------|---------------------------|
| *History, 1, 2, or 3 units.....                       | Sat., July 11, 8:00 a.m.  |
| Civics, $\frac{1}{2}$ unit or 1 unit.....             | Sat., July 11, 10:00 a.m. |
| †Physiology, $\frac{1}{2}$ unit or 1 unit.....        | Sat., July 18, 8:00 a.m.  |
| Commercial geography, $\frac{1}{2}$ unit.....         | Sat., July 18, 8:00 a.m.  |
| †Physiography, $\frac{1}{2}$ unit or 1 unit.....      | Sat., July 18, 10:00 a.m. |
| Algebra, $1\frac{1}{2}$ units.....                    | Sat., July 25, 8:00 a.m.  |
| Plane geometry, 1 unit.....                           | Sat., July 25, 8:00 a.m.  |
| Solid and spherical geometry, $\frac{1}{2}$ unit..... | Sat., July 25, 10:00 a.m. |
| English literature, 2 units.....                      | Sat., Aug. 8, 8:00 a.m.   |
| English composition, 1 unit.....                      | Sat., Aug. 8, 10:00 a.m.  |
| Latin, 1, 2, 3, or 4 units.....                       | Sat., Aug. 8, 8:00 a.m.   |
| German, 1, 2, 3, or 4 units.....                      | Sat., Aug. 8, 8:00 a.m.   |

The time for examinations in agriculture, astronomy, bookkeeping, botany†, business law, chemistry‡, domestic science, drawing

\*Three units may be offered in history, made up from the following: Ancient history to 800 A. D., 1 unit; medieval and modern history, 1 unit; English history,  $\frac{1}{2}$  unit or 1 unit; American history,  $\frac{1}{2}$  unit or 1 unit.

†Note-book required for 1 unit; not required for  $\frac{1}{2}$  unit.

‡Note-book required.

(freehand or mechanical), economics, the fourth unit in English, French, geology, Greek, physics\*, Spanish, trigonometry, and zoology\*, will be arranged with candidates.

FALL EXAMINATIONS, SEPTEMBER, 1914

|                                            |                   |            |
|--------------------------------------------|-------------------|------------|
| *Chemistry, 1 unit.....                    | Mon., Sept. 14,   | 1:00 p.m.  |
| Geology, ½ unit or 1 unit.....             | Mon., Sept. 14,   | 1:00 p.m.  |
| Astronomy, ½ unit.....                     | Mon., Sept. 14,   | 3:30 p.m.  |
| Trigonometry, ½ unit.....                  | Mon., Sept. 14,   | 3:30 p.m.  |
| ‡History, 1, 2, or 3 units.....            | Tues., Sept. 15,  | 8:00 a.m.  |
| English literature, 2 units.....           | Tues., Sept. 15,  | 1:00 p.m.  |
| English composition, 1 unit.....           | Tues., Sept. 15,  | 3:30 p.m.  |
| Latin, 1st unit, or 2nd unit, or both..... | Wed., Sept. 16,   | 8:00 a.m.  |
| *Physics, 1 unit.....                      | Wed., Sept. 16,   | 8:00 a.m.  |
| †Physical geography, ½ unit or 1 unit...   | Wed., Sept. 16,   | 10:30 a.m. |
| Algebra, 1½ units.....                     | Wed., Sept. 16,   | 1:00 p.m.  |
| Civics, ½ unit or 1 unit.....              | Wed., Sept. 16,   | 3:30 p.m.  |
| Economics, ½ unit.....                     | Wed., Sept. 16,   | 3:30 p.m.  |
| Geometry, plane, 1 unit.....               | Thurs., Sept. 17, | 8:00 a.m.  |
| Geometry, solid and spherical, ½ unit...   | Thurs., Sept. 17, | 10:30 a.m. |
| †Physiology, ½ unit or 1 unit.....         | Thurs., Sept. 17, | 10:30 a.m. |
| German, 1st unit, or 2nd unit, or both...  | Thurs., Sept. 17, | 1:00 p.m.  |
| German, 3rd unit, or 4th unit, or both...  | Thurs., Sept. 17, | 3:30 p.m.  |
| French, 1st unit, or 2nd unit, or both...  | Thurs., Sept. 17, | 1:00 p.m.  |
| French, 3rd unit, or 4th unit, or both...  | Thurs., Sept. 17, | 3:30 p.m.  |
| Spanish, 1st unit, or 2nd unit, or both... | Thurs., Sept. 17, | 1:00 p.m.  |
| Business law, ½ unit.....                  | Thurs., Sept. 17, | 1:00 p.m.  |
| Commercial geography, ½ unit.....          | Thurs., Sept. 17, | 3:30 p.m.  |
| Latin, 3rd unit, or 4th unit, or both..... | Fri., Sept. 18,   | 8:00 a.m.  |
| Bookkeeping, 1 unit.....                   | Fri., Sept. 18,   | 8:00 a.m.  |
| *Botany, ½ unit or 1 unit.....             | Fri., Sept. 18,   | 8:00 a.m.  |
| *Zoology, ½ unit or 1 unit.....            | Fri., Sept. 18,   | 10:30 a.m. |

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, Greek, and the fourth unit in English, will be arranged with applicants.

\*Note-book required.

†Note-book required for 1 unit; not required for ½ unit.

‡Three units may be offered in history, made up from the following: Ancient history to 800 A. D., 1 unit; medieval and modern history, 1 unit; English history, ½ unit or 1 unit; American history, ½ unit or 1 unit.



## MID-YEAR EXAMINATIONS, FEBRUARY, 1915

|                                                        |                 |            |
|--------------------------------------------------------|-----------------|------------|
| *Chemistry, 1 unit.....                                | Wed., Feb. 3,   | 8:00 a.m.  |
| Geology, $\frac{1}{2}$ unit or 1 unit.....             | Wed., Feb. 3,   | 8:00 a.m.  |
| Astronomy, $\frac{1}{2}$ unit.....                     | Wed., Feb. 3,   | 10:30 a.m. |
| Trigonometry, $\frac{1}{2}$ unit.....                  | Wed., Feb. 3,   | 10:30 a.m. |
| ‡History, 1, 2, or 3 units.....                        | Wed., Feb. 3,   | 1:00 p.m.  |
| English literature, 2 units.....                       | Thurs., Feb. 4, | 8:00 a.m.  |
| English composition, 1 unit.....                       | Thurs., Feb. 4, | 10:30 a.m. |
| Latin, 1st unit, or 2nd unit, or both.....             | Thurs., Feb. 4, | 1:00 p.m.  |
| *Physics, 1 unit.....                                  | Thurs., Feb. 4, | 1:00 p.m.  |
| †Physical geography, $\frac{1}{2}$ unit or 1 unit....  | Thurs., Feb. 4, | 3:30 p.m.  |
| Algebra, $1\frac{1}{2}$ units.....                     | Fri., Feb. 5,   | 8:00 a.m.  |
| Civics, $\frac{1}{2}$ unit or 1 unit.....              | Fri., Feb. 5,   | 10:30 a.m. |
| Economics, $\frac{1}{2}$ unit.....                     | Fri., Feb. 5,   | 10:30 a.m. |
| Geometry, plane, 1 unit.....                           | Fri., Feb. 5,   | 1:00 p.m.  |
| Geometry, solid and spherical, $\frac{1}{2}$ unit..... | Fri., Feb. 5,   | 3:30 p.m.  |
| †Physiology, $\frac{1}{2}$ unit or 1 unit.....         | Fri., Feb. 5,   | 3:30 p.m.  |
| German, 1st unit, or 2nd unit, or both.....            | Sat., Feb. 6,   | 8:00 a.m.  |
| German, 3rd unit, or 4th unit, or both.....            | Sat., Feb. 6,   | 10:30 a.m. |
| French, 1st unit, or 2nd unit, or both.....            | Sat., Feb. 6,   | 8:00 a.m.  |
| French, 3rd unit, or 4th unit, or both.....            | Sat., Feb. 6,   | 10:30 a.m. |
| Spanish, 1st unit, or 2nd unit, or both.....           | Sat., Feb. 6,   | 8:00 a.m.  |
| Business law, $\frac{1}{2}$ unit.....                  | Sat., Feb. 6,   | 8:00 a.m.  |
| Commercial geography, $\frac{1}{2}$ unit.....          | Sat., Feb. 6,   | 10:30 a.m. |
| Latin, 3rd unit, or 4th unit, or both.....             | Sat., Feb. 6,   | 1:00 p.m.  |
| Bookkeeping, 1 unit.....                               | Sat., Feb. 6,   | 1:00 p.m.  |
| *Botany, $\frac{1}{2}$ unit or 1 unit.....             | Sat., Feb. 6,   | 1:00 p.m.  |
| *Zoology, $\frac{1}{2}$ unit or 1 unit.....            | Sat., Feb. 6,   | 3:30 p.m.  |

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, Greek, and the fourth unit in English, will be arranged with applicants.

## LIST OF ACCREDITED SCHOOLS

(Correct to January 1, 1914)

The following high schools, having all the *prescribed* units, and enough others to make up the *required total* of 15 units, are in the list of fully accredited schools.

Not all of these schools, however, are accredited for the same amount of work, nor all for the same subjects. A student present-

\*Note-book required.

†Note-book required for 1 unit; not required for  $\frac{1}{2}$  unit.

‡Three units may be offered in history, made up from the following: Ancient history to 800 A. D., 1 unit; medieval and modern history, 1 unit; English history,  $\frac{1}{2}$  unit or 1 unit; American history,  $\frac{1}{2}$  unit or 1 unit.

ing a certificate from any one of these schools will be given entrance credit for all the subjects named therein *for which the said school is specifically accredited, as shown in the certificate of its accredited relation issued by the University.*

The High School Visitor of the University inspects high schools not previously accredited upon request, if the request is accompanied by a report of the school which shows that it merits such inspection. The University accredits all work which is thus found to be sufficiently well done. For further particulars address THE HIGH SCHOOL VISITOR, in care of the University of Illinois.

### FULLY ACCREDITED SCHOOLS

| SCHOOL                                         | SUPERINTENDENT        | PRINCIPAL                    |
|------------------------------------------------|-----------------------|------------------------------|
| ABINGDON                                       | A. C. BUTLER          | M. P. WILKINS                |
| ALBION                                         |                       |                              |
| HIGH SCHOOL                                    | ELBERT WALLER         | LEE V. MATHENY               |
| SOUTHERN COLLEGIATE INSTITUTE                  |                       | FRANK B. HINES, <i>Pres.</i> |
| ALEDO                                          |                       |                              |
| HIGH SCHOOL                                    | F. N. TAYLOR          | A. F. CALDWELL               |
| DRURY ACADEMY                                  |                       | DEAN M. INMAN                |
| ALTAMONT                                       | WILLIAM HARRIS        | F. I. TILLMAN                |
| ALTON                                          | R. A. HAIGHT          | B. C. RICHARDSON             |
| AMBOY                                          | O. M. EASTMAN         | MYRTLE KENNEY                |
| ANNA                                           |                       |                              |
| HIGH SCHOOL                                    | F. C. PROWDLEY        | CHARLES MCGINNIS             |
| UNION ACADEMY                                  |                       | H. WALLACE STEVENS           |
| ARCOLA                                         | SHELDON R. ALLEN      | INA L. RABB                  |
| ARISPIE-INDIANTOWN TP. ( <i>Tiskilwa</i> )     |                       | F. H. CRAVEN                 |
| ARLINGTON HEIGHTS                              | O. R. ZOLL            | ADA R. KRUGER                |
| ARMINGTON                                      |                       |                              |
| HITTLE TP.                                     |                       | EUNICE BLACKBURN             |
| ARTHUR                                         | ELZIE L. STEWART      | GROVER C. SUMMERS            |
| ASHLAND                                        | JAMES G. NORRIS       | BERTHA MAE ALLEN             |
| ASSUMPTION TP.                                 |                       | H. G. SPEAR                  |
| ASTORIA                                        | J. R. ROWLAND         | MILERNA SCHLUTIUS            |
| ATLANTA                                        | C. D. JACOBS          | CARRIE M. BOLING             |
| ATWOOD                                         | ARTHUR W. NIEDERMEYER | LOTTIE B. COOK               |
| AUBURN                                         | CHARLES E. KUECHLER   | LETTIE E. BRISTOL            |
| AUGUSTA                                        | C. B. WHITEHOUSE      | A. E. DECKER                 |
| AUGUSTANA COLLEGE ACAD. ( <i>Rock Island</i> ) |                       | C. W. FOSS                   |
| AURORA                                         |                       |                              |
| EAST HIGH SCHOOL                               | C. M. BARDWELL        | C. E. LAWYER                 |
| WEST HIGH SCHOOL                               |                       | K. C. MERRICK                |
| JENNINGS SEMINARY                              |                       | BERTHA A. BARBER             |
| AUSTIN HIGH SCHOOL                             |                       |                              |
| ( <i>Chicago</i> )                             | ELLA FLAGG YOUNG      | GEORGE H. ROCKWOOD           |
| AVERYVILLE HIGH SCHOOL                         |                       |                              |
| ( <i>Peoria</i> )                              | HARRY E. ILER         | HAZEL BROAD                  |
| BARRY                                          | HENRY S. STICE        | RUTH TIPPLE                  |
| BATAVIA                                        | H. A. BONE            | E. S. WILLIAMSON             |
| BEARDSTOWN                                     | H. G. RUSSELL         | MRS. H. G. RUSSELL           |
| BELLEVILLE                                     | GEORGE H. BUSIEK      | H. W. BRUA                   |
| BELLFLOWER TP.                                 |                       | E. R. SPENCER                |
| BELVIDERE                                      | LEWIS A. REISNER      | J. E. ALMON                  |
| BEMENT                                         | N. N. STEVENSON       | B. G. GOODWORTH              |
| BENTON TP.                                     |                       | E. S. LAKE                   |
| BIGGSVILLE TP.                                 |                       | J. CHARLES MCMILLAN          |
| BLOOMINGTON                                    |                       |                              |
| HIGH SCHOOL                                    | J. K. STABLETON       | WILLIAM WALLIS               |
| ST. MARY'S HIGH SCHOOL                         |                       | SISTER MARIE ALPHONSE        |
| BLOOM TP. ( <i>Chicago Heights</i> )           |                       | E. L. BOYER                  |
| BLUE ISLAND                                    | J. E. LEMON           | RAY D. CROUT                 |



## General Information

| SCHOOL                               | SUPERINTENDENT     | PRINCIPAL                   |
|--------------------------------------|--------------------|-----------------------------|
| BOWEN HIGH SCHOOL<br>(Chicago)       | ELLA FLAGG YOUNG   | CHARLES I. PARKER           |
| BRADLEY POLY. INST. (Peoria)         |                    | T. C. BURGESS, <i>Dir.</i>  |
| BRIDGEPORT TP.                       |                    | A. F. TRAMS                 |
| BUSHNELL                             | R. C. HIETT        | MARY C. RASMUSSEN           |
| CAIRO                                | T. C. CLENDENEN    | MARGARET WILSON             |
| CALUMET HIGH SCHOOL<br>(Chicago)     | ELLA FLAGG YOUNG   | GRANT BEEBE                 |
| CAMBRIDGE                            | H. M. HINKLE       | ZELLA A. PETTY              |
| CAMP POINT                           | W. H. BREWSTER     | PEARL T. BROWN              |
| CANTON                               | G. W. GAYLOR       | I. P. RINKER                |
| CARLINVILLE                          | HARVEY T. WHITE    | MARGARET HUBBARD            |
| CARL SCHURZ HIGH SCHOOL<br>(Chicago) | ELLA FLAGG YOUNG   | WALTER F. SLOCUM            |
| CARLYLE                              | M. N. TODD         | PERCY C. GARWOOD            |
| CARMI                                | JOSEPH GERSBACHER  | HENRY J. KARCH              |
| CARROLLTON                           | EDWIN A. DOOLITTLE | DAVID M. CRIST              |
| CARTERVILLE                          | R. G. CRISENBERRY  | L. L. JONES                 |
| CARTHAGE                             |                    |                             |
| HIGH SCHOOL                          | D. H. WELLS        | A. M. WILSON                |
| CARTHAGE COLLEGE ACADEMY             |                    | H. D. HOOVER, <i>Pres.</i>  |
| CASEY                                | W. G. THOMPSON     | W. P. WYATT                 |
| CENTRAL HIGH SCHOOL<br>(Peoria)      | G. T. SMITH        | A. W. BEASLEY               |
| CENTRALIA TP.                        |                    | ESTON V. TUBBS              |
| CHAMPAIGN                            | W. W. EARNEST      | LOTTIE SWITZER              |
| CHARLESTON                           | DEWITT ELWOOD      | LESTER R. MCCARTY           |
| CHATSWORTH                           | L. C. SMITH        | LYDDIA E. KLAMM             |
| CHENOA                               | A. B. HIETT        | MAUDE FAIRFIELD             |
| CHESTER                              | S. E. REECHER      | J. L. BOWMAN                |
| CHICAGO PUBLIC HIGH<br>SCHOOLS       | ELLA FLAGG YOUNG   |                             |
| AUSTIN                               |                    | GEORGE H. ROCKWOOD          |
| BOWEN                                |                    | CHARLES I. PARKER           |
| CALUMET                              |                    | AVON S. HALL                |
| CARL SCHURZ                          |                    | WALTER F. SLOCUM            |
| CRANE, R. T. (Tech.)                 |                    | W. J. BARTHOLF              |
| CURTIS                               |                    | THOMAS G. HILL              |
| ENGLEWOOD                            |                    | JAMES E. ARMSTRONG          |
| HARRISON TECHNICAL                   |                    | FRANK L. MORSE              |
| HYDE PARK                            |                    | HIRAM B. LOOMIS             |
| LAKE                                 |                    | EDWARD F. STEARNS           |
| LAKE VIEW                            |                    |                             |
| LANE TECHNICAL                       |                    | W. J. BOGAN                 |
| MCKINLEY                             |                    | GEORGE M. CLAYBERG          |
| MARSHALL                             |                    | LOUIS J. BLOCK              |
| MEDILL                               |                    |                             |
| PHILLIPS                             |                    | SPENCER R. SMITH            |
| TULEY                                |                    | FRANKLIN P. FISK            |
| WALLER                               |                    | OLIVER S. WESTCOTT          |
| CHICAGO PRIVATE SCHOOLS              |                    |                             |
| LATIN SCHOOL                         |                    | R. P. BATES                 |
| HARVARD SCHOOL                       |                    | J. J. SCHOBINGER            |
| F. W. PARKER SCHOOL                  |                    | FLORA J. COOKE              |
| KENWOOD INSTITUTE                    |                    | MRS. STELLA DYER-<br>LORING |
| LOYOLA ACADEMY                       |                    | SIMON NICHOLAS, S. J.       |
| NORTH PARK COLLEGE ACADEMY           |                    | C. J. WILSON                |
| UNIVERSITY HIGH SCHOOL               |                    | F. W. JOHNSON               |
| CHICAGO HEIGHTS                      |                    |                             |
| BLOOM TP. HIGH SCHOOL                |                    | E. L. BOYER                 |
| CHILLICOTHE TP.                      |                    | ARTHUR M. WELLS             |
| CHRISMAN                             | WINFIELD SCOTT     | HELEN E. BOOKER             |
| CICERO                               |                    |                             |
| J. STERLING MORTON TP.               |                    | H. V. CHURCH                |
| CLAYTON                              | T. J. HANEY        | IRENE CHAPMAN               |
| CLINTON                              | H. H. EDMUNDS      | J. D. KNIGHT                |

# Accredited Schools

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| SCHOOL                                                       | SUPERINTENDENT    | PRINCIPAL                     |
|--------------------------------------------------------------|-------------------|-------------------------------|
| COLFAX                                                       | P. M. HOKE        | LIDA J. SMITH                 |
| COLLEGIATE INSTITUTE ( <i>Geneseo</i> )                      |                   | A. E. ARENDT                  |
| COLLINSVILLE TP.                                             |                   | W. J. BARTHOLF                |
| CRANE, R. F. ( <i>Tech.</i> ) HIGH SCHOOL ( <i>Chicago</i> ) | ELLA FLAGG YOUNG  | RICHARD G. BREEDEN            |
| CRYSTAL LAKE                                                 | H. A. DEAN        | THOMAS G. HILL                |
| CURTIS HIGH SCHOOL ( <i>Chicago</i> )                        | ELLA FLAGG YOUNG  | A. W. SMALLEY                 |
| DALLAS CITY                                                  | M. N. BEEMAN      | JESSE H. NEWLON               |
| DANVILLE                                                     | G. P. RANDLE      | F. M. GILES                   |
| DECATUR                                                      | J. O. ENGLEMAN    | MARIE F. TATE                 |
| DEKALB TP.                                                   |                   |                               |
| DELAVAN                                                      | R. W. BARDWELL    |                               |
| DES PLAINES                                                  |                   |                               |
| MAINE TP.                                                    |                   |                               |
| DIXON                                                        |                   | HORACE L. HOWARD              |
| HIGH SCHOOL                                                  | W. R. SNYDER      | C. H. ANDERSON                |
| NORTH HIGH SCHOOL                                            | H. V. BALDWIN     | LEBBEUS WOODS                 |
| DOWNER'S GROVE                                               | G. C. BUTLER      | M. MAUDE MANLEY               |
| DRURY ACADEMY ( <i>Aledo</i> )                               |                   | DEAN M. INMAN                 |
| DRUMMER TP. ( <i>Gibson City</i> )                           |                   | H. T. MCKINNEY                |
| DUNDEE                                                       | E. C. FISHER      | EDNA BEERS                    |
| DUQUOIN TP.                                                  |                   | C. W. HOUK                    |
| DWIGHT                                                       | C. A. BROTHERS    | MISS E. M. BROWN              |
| EARLVILLE                                                    | F. L. BENNETT     | NELLIE L. SMITH               |
| EAST HIGH SCHOOL ( <i>Aurora</i> )                           |                   |                               |
| EAST ST. LOUIS                                               | C. M. BARDWELL    | C. E. LAWYER                  |
| EDWARDSVILLE                                                 | D. WALTER POTTS   | H. J. ALVIS                   |
| EFFINGHAM                                                    | CHARLES F. FORD   | J. G. STULL                   |
| ELDORADO TP.                                                 | O. C. BAILEY      | GUY C. GLADSON                |
| ELGIN                                                        |                   | M. T. VANCLEVE                |
| HIGH SCHOOL                                                  |                   |                               |
| ELGIN ACADEMY                                                | ROBERT I. WHITE   | W. L. GOBLE                   |
| ELIZABETH                                                    |                   | H. M. BUCKLEY                 |
| ELMHURST                                                     | R. I. LEWIS       | CARRIE BEAVEN                 |
| HIGH SCHOOL                                                  |                   |                               |
| EVANGELICAL PROSEMINAR                                       | A. M. NICHOLSON   | JOHN C. HOSKINSON             |
| ELMWOOD                                                      | C. C. CONDIT      | DANIEL IRION, <i>Director</i> |
| ELPASO                                                       | C. H. BRITTIN     | HARRIET C. ERBACHER           |
| ENGLEWOOD HIGH SCHOOL ( <i>Chicago</i> )                     |                   | GLEN GRIGGS                   |
| EVANGELICAL PROSEMINAR ( <i>Elmhurst</i> )                   | ELLA FLAGG YOUNG  |                               |
| EVANSTON                                                     |                   | JAMES E. ARMSTRONG            |
| TOWNSHIP HIGH SCHOOL                                         |                   | DANIEL IRION, <i>Director</i> |
| EVANSTON ACADEMY                                             |                   |                               |
| FAIRBURY                                                     | E. W. POWERS      | W. F. BEARDSLEY               |
| FAIRFIELD                                                    | C. H. WILSON      | N. W. HELM                    |
| FARMER CITY                                                  |                   | MYRTLE STAFFORD               |
| MOORE TP.                                                    |                   | H. D. WILLARD                 |
| FARMINGTON                                                   |                   |                               |
| FERRY HALL ( <i>Lake Forest</i> )                            | H. L. DYAR        | H. D. FICKELBERG              |
| FLORA                                                        |                   | ESTHER HEDQUIST               |
| HARTER-STANFORD TP.                                          |                   | FRANCES LAURA HUGHES          |
| FORREST                                                      |                   |                               |
| FRANCES SHIMER SCHOOL ( <i>Mt. Carroll</i> )                 | H. H. BAUMGARDNER | O. A. TOWNS                   |
|                                                              |                   | HOPE M. POLLARD               |
| FREEPORT                                                     | S. E. RAINES      | WILLIAM P. MCKEE,             |
| FULTON                                                       | HARRY B. PRICE    | <i>Dean</i>                   |
| GALENA                                                       | G. W. MENZIMER    | L. A. FULWIDER                |
| GALESBURG                                                    | W. L. STEELE      | MRS. C. R. FLATT              |
| GALVA                                                        | F. U. WHITE       | KATHARINE OBYE                |
| GENESE                                                       |                   | A. W. WILLIS                  |
| GENESE                                                       |                   | HENRIETTA SILLIMAN            |
| TOWNSHIP HIGH SCHOOL                                         |                   |                               |
| COLLEGIATE INSTITUTE                                         |                   | A. J. BEATTY                  |
| GENEVA                                                       | H. M. COULTRAP    | LESTER S. PARKER              |
| GENOA                                                        | CHARLES E. LOWMAN | MRS. MARGARET SPRAKER         |



| SCHOOL                                            | SUPERINTENDENT                | PRINCIPAL                      |
|---------------------------------------------------|-------------------------------|--------------------------------|
| GEORGETOWN Tp.                                    |                               | O. P. REES                     |
| GIBSON CITY                                       |                               |                                |
| DRUMMER Tp.                                       |                               | H. T. MCKINNEY                 |
| GILMAN                                            | ROY WITHROW                   | GRETTA R. WILNER               |
| GODFREY                                           |                               |                                |
| MONTICELLO SEMINARY                               |                               | MARTINA C. ERICKSON            |
| GRAND PRAIRIE SEMINARY ( <i>Onarga</i> )          |                               | H. H. FROST, <i>Pres.</i>      |
| GRANITE CITY                                      | L. P. FROHARDT                | WALTER F. COOLIDGE             |
| GREENFIELD                                        | L. W. RAGLAND                 | HAZEL D. DOLLINGER             |
| GREENVIEW                                         | J. P. SCHEID                  | HAZEL ALKIN                    |
| GREENVILLE                                        | S. S. SIMPSON                 | WALDO F. MITCHELL              |
| GRIGGSVILLE                                       | VAIL CORDELL                  | ROBERTA S. AMRINE              |
| HAMILTON                                          | J. A. JOHNSTON                | PHILENA CLARK                  |
| HARRISBURG Tp.                                    |                               | HARRY TAYLOR                   |
| HARRISON TECHNICAL HIGH SCHOOL ( <i>Chicago</i> ) | ELLA FLAGG YOUNG              | FRANK L. MORSE                 |
| HARTER-STANFORD Tp. ( <i>Flora</i> )              |                               | O. A. TOWNS                    |
| HARVARD                                           | J. H. LIGHT                   | FLOYD E. DEWHIRST              |
| HARVARD SCHOOL ( <i>Chicago</i> )                 |                               | J. J. SCHOBINGER               |
| HARVEY                                            |                               |                                |
| THORNTON Tp.                                      |                               | L. W. SMITH                    |
| HAVANA                                            | T. S. HENRY                   | MRS. SARA E. PIERCE            |
| HENRY                                             | W. E. KING                    | ESTHER MASSEY                  |
| HERRIN Tp.                                        |                               | T. H. SCHUTTE                  |
| HYDE PARK HIGH SCHOOL ( <i>Chicago</i> )          | ELLA FLAGG YOUNG              | HIRAM B. LOOMIS                |
| HEYWORTH                                          | L. R. BLOHM                   | MRS. LILLIAN ANDERSON          |
| HIGHLAND                                          | C. L. DIETZ                   | C. L. DIETZ                    |
| HIGHLAND PARK                                     |                               |                                |
| TOWNSHIP HIGH SCHOOL                              |                               | R. L. SANDWICK                 |
| NORTHWESTERN MILITARY ACADEMY                     |                               | DR. H. H. ROGERS               |
| HILLSBORO                                         | H. J. BECKEMEYER              | D. O. KIME                     |
| HINDSBORO UNION                                   | O. V. SCHAEFFER               | EMMA NEWELL                    |
| HINSDALE                                          | H. B. FISHER                  | I. A. WILSON                   |
| HITTLE Tp. ( <i>Armington</i> )                   |                               | EUNICE BLACKBURN               |
| HOMER                                             | W. D. MADDEN                  | OTTO H. WORLEY                 |
| HOOPESTON                                         | S. K. McDOWELL                | W. R. LOWERY                   |
| HUME                                              | FRANK D. FLEMING              | AUDREY DYKEMAN                 |
| HUTSONVILLE Tp.                                   |                               | HARRY THRASHER                 |
| ILLINOIS WOMAN'S COLLEGE                          | ACAD. ( <i>Jacksonville</i> ) | JOSEPH R. HARKER, <i>Pres.</i> |
| ILLIOPOLIS                                        | W. P. SULLIVAN                | ZITA JACKSON                   |
| INDUSTRY Tp.                                      |                               | FRED MABREY                    |
| JACKSONVILLE                                      |                               |                                |
| HIGH SCHOOL                                       | ADOLPH GORE                   | CHARLES E. COLLINS             |
| ILLINOIS WOMAN'S COLLEGE ACADEMY                  |                               | JOSEPH R. HARKER, <i>Pres.</i> |
| WHIPPLE ACADEMY                                   |                               | WALTER L. HARRIS               |
| JENNINGS SEMINARY ( <i>Aurora</i> )               |                               | BERTHA A. BARBER               |
| JERSEYVILLE                                       | J. PIKE                       | E. B. SHAFER                   |
| JOHNSTON CITY                                     | F. D. HARWOOD                 | C. J. RAMSAY                   |
| JOHN SWANEY SCHOOL ( <i>McNabb</i> )              |                               | R. R. SNAPP                    |
| JOLIET Tp.                                        |                               | J. STANLEY BROWN               |
| J. STERLING MORTON Tp. ( <i>Cicero</i> )          |                               | H. V. CHURCH                   |
| KANKAKEE                                          | F. N. TRACY                   | WILLIAM R. TOWSLEY             |
| KANSAS                                            | R. B. HENLEY                  | NEVA B. WILEY                  |
| KENILWORTH                                        |                               |                                |
| NEW TRIER Tp.                                     |                               | H. E. BROWN                    |
| KENWOOD INSTITUTE ( <i>Chicago</i> )              |                               | MRS. STELLA DYER-LORING        |
| KEWANEE                                           | W. R. CURTIS                  | WENDELL S. BROOKS              |
| KINMUNDY                                          | E. V. LATHAM                  | BRUCE H. CORZINE               |
| KNOXVILLE                                         | G. G. LAFFERTY                | SYLVIA E. SMITH                |
| LAGRANGE                                          |                               |                                |
| LYONS Tp.                                         |                               | G. H. WILKINSON                |
| LAHARPE                                           | T. W. EVERITT                 | JANE ROBERTSON                 |
| LAKE HIGH SCHOOL ( <i>Chicago</i> )               | ELLA FLAGG YOUNG              | EDWARD F. STEARNS              |

# Accredited Schools

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| SCHOOL                                           | SUPERINTENDENT                      | PRINCIPAL                           |
|--------------------------------------------------|-------------------------------------|-------------------------------------|
| LAKE FOREST<br>LAKE FOREST ACADEMY<br>FERRY HALL |                                     | W. M. LEWIS<br>FRANCES LAURA HUGHES |
| LAKE VIEW HIGH SCHOOL<br>(Chicago)               | ELLA FLAGG YOUNG<br>CHARLES S. COEB | LINA AUKERMAN                       |
| LANARK                                           |                                     | W. J. BOGAN                         |
| LANE TECHNICAL HIGH<br>SCHOOL (Chicago)          | ELLA FLAGG YOUNG                    | T. J. MCCORMACK                     |
| LA SALLE-PERU TP. (LaSalle)                      |                                     | R. P. BATES                         |
| LATIN SCHOOL (Chicago)                           |                                     | F. W. COX                           |
| LAWRENCEVILLE TP.                                |                                     | ELSIE ENGLISH                       |
| LENA                                             | F. P. DONNER                        | MARGARET MCCUNE                     |
| LEROY                                            | W. A. GOODIER                       | W. L. BOLES                         |
| LEWISTOWN                                        | C. B. SMITH                         | THEODORE F. FIEKER                  |
| LEXINGTON                                        | J. H. SMITH                         | H. LOUISE CATER                     |
| LIBERTYVILLE                                     | F. L. HOLCH                         | A. B. KORB                          |
| LINCOLN                                          | H. A. PERRIN                        | D. B. CARROLL                       |
| LITCHFIELD                                       | WILLIAM HAWKES                      | ALFRED LIVINGSTON                   |
| LOCKPORT TP.                                     |                                     | MARIE E. WALLIN                     |
| LODA                                             | G. H. WELLS                         | L. W. CHATHAM                       |
| LOVINGTON TP.                                    |                                     | SIMON NICHOLAS, S. J.               |
| LOYOLA ACADEMY (Chicago)                         |                                     | G. H. WILKINSON                     |
| LYONS TP. (LaGrange)                             |                                     | GEORGE M. CLAYBERG                  |
| MCKINLEY HIGH SCHOOL<br>(Chicago)                | ELLA FLAGG YOUNG<br>L. G. HICKMAN   | ROBERT WILSON                       |
| MCLEANSBORO                                      |                                     | R. R. SNAPP                         |
| MENAB                                            |                                     | C. G. MAXWELL                       |
| JOHN SWANEY SCHOOL                               | T. M. BIRNEY                        | W. P. MORGAN                        |
| MACOMB                                           | LOUIS BAER                          | HENRY H. JANSSEN                    |
| HIGH SCHOOL                                      |                                     | HORACE L. HOWARD                    |
| W. ILL. ST. NORMAL ACADEMY                       | J. A. ALEXANDER                     | LOIS MORROW                         |
| MADISON                                          | C. A. GREGORY                       | FLORENCE SCHWARTZ                   |
| MAINE TP. (DesPlaines)                           | ALBERT REEP                         | WILLIAM N. BROWN                    |
| MANSFIELD                                        |                                     | L. J. POLLARD                       |
| MANTENO                                          |                                     | E. G. LENTZ                         |
| MANUAL TRAINING HIGH SCHOOL (Peoria)             |                                     | ANNA J. McNABNEY                    |
| MAKENGO                                          | E. A. COLLINS                       | ELINORE A. BATES                    |
| MARION TP.                                       |                                     | LOUIS J. BLOCK                      |
| MARISSA TP.                                      | ELLA FLAGG YOUNG                    | LEWIS W. WILLIAMS                   |
| MARSEILLES                                       | G. A. BUZZARD                       | L. B. CURRY                         |
| MARSHALL HIGH SCHOOL<br>(Chicago)                | J. F. WILEY                         | H. B. BLACK                         |
| MARSHALL TP.                                     |                                     | E. C. SHIELDS                       |
| MASON CITY                                       | ELLA FLAGG YOUNG                    | HAZEL MCCREARY                      |
| MATTOON                                          | R. H. MALCOMSON                     | B. J. DEAN                          |
| MASON TP.                                        | J. H. BROWNING                      | MRS. ROSE E. CUTTING                |
| MEDILL HIGH SCHOOL<br>(Chicago)                  | M. N. MCCARTNEY                     | H. W. MCCULLOCH                     |
| MENDON                                           |                                     | JOHN E. WITMER                      |
| MENDOTA                                          | B. R. MORRIS                        | CHARLES H. BRIGGS                   |
| METROPOLIS                                       | C. H. MAXSON                        | E. P. NUTTING                       |
| MILFORD TP.                                      | R. J. WALTERS                       | E. E. WHEELER                       |
| MAYWOOD                                          | C. E. JOINER                        | MARY FINDLEY                        |
| PROVISO TP.                                      | A. W. GROSS                         | RUBY L. ALLEN                       |
| MINONK                                           |                                     | MARTINA C. ERICKSON                 |
| MOLINE                                           |                                     | H. D. EICKELBERG                    |
| MOMENCE                                          |                                     | J. H. HEIL                          |
| MONMOUTH                                         |                                     | HARRY D. ABELLS                     |
| MONTICELLO                                       |                                     | L. C. ROBEY                         |
| MONTICELLO SEMINARY (Godfrey)                    |                                     | MARY L. BARNES                      |
| MOORE TP. (Farmer City)                          |                                     | T. L. COOK                          |
| MORGAN PARK                                      |                                     |                                     |
| TOWNSHIP HIGH SCHOOL                             |                                     |                                     |
| MORGAN PARK ACADEMY                              |                                     |                                     |
| MORRIS                                           | EDWIN D. MARTIN                     |                                     |
| MORRISON                                         | W. E. WEAVER                        |                                     |
| MORTON TP.                                       |                                     |                                     |



| SCHOOL                                                 | SUPERINTENDENT     | PRINCIPAL                        |
|--------------------------------------------------------|--------------------|----------------------------------|
| Mt. CARMEL                                             | A. S. ANDERSON     | J. T. DORRIS                     |
| Mt. CARROLL                                            |                    |                                  |
| HIGH SCHOOL                                            | G. V. CLUM         | GAYLE H. AU                      |
| FRANCES SHIMER SCHOOL                                  |                    | WILLIAM P. MCKEE,<br><i>Dean</i> |
| Mt. PULASKI Tp.                                        |                    | L. F. FULWILER                   |
| Mt. STERLING                                           | M. L. TEST         | BELLE WILLIAMSON                 |
| Mt. VERNON Tp.                                         |                    | J. M. DICKSON                    |
| MOWEAQUA                                               | C. W. YERKES       | J. EARL HIETT                    |
| MURPHYSBORO Tp.                                        |                    | G. J. KOONS                      |
| NAPERVILLE                                             |                    |                                  |
| HIGH SCHOOL                                            | O. A. WATERMAN     | V. BLANCHE GRAHAM                |
| NORTHWESTERN COLLEGE ACADEMY                           |                    | THOMAS FINKBEINER                |
| NASHVILLE                                              | W. C. FAIRWEATHER  | ROLLA HILLER                     |
| NEOGA Tp.                                              |                    | W. L. HAGAN                      |
| NEWMAN Tp.                                             |                    | J. H. TRINKLE                    |
| NEWTON                                                 | C. E. GIRHARD      | J. H. PURSIFULL                  |
| NEW TRIER Tp. ( <i>Kenilworth</i> )                    |                    | H. E. BROWN                      |
| NOKOMIS                                                | HENRY BUELLESFIELD | LUCILE HESKETT                   |
| NORMAL                                                 |                    |                                  |
| HIGH SCHOOL                                            | C. F. MILLER       | E. L. KING                       |
| UNIVERSITY HIGH SCHOOL                                 |                    | RALPH W. PRINGLE                 |
| NORTH HIGH SCHOOL                                      |                    |                                  |
| ( <i>Dixon</i> )                                       | H. V. BALDWIN      | LEBBEUS WOODS                    |
| NORTH PARK COLLEGE ACADEMY ( <i>Chicago</i> )          |                    | C. J. WILSON                     |
| NORTHWESTERN COLLEGE ACADEMY ( <i>Naperville</i> )     |                    | THOMAS FINKBEINER                |
| NORTHWESTERN MILITARY ACADEMY ( <i>Highland Park</i> ) |                    | DR. H. H. ROGERS                 |
| OAKLAND                                                | G. W. SUTTON       | MABEL BANTA                      |
| OAK PARK & RIVER FOREST Tp. ( <i>Oak Park</i> )        |                    | J. CALVIN HANNA                  |
| OBLONG                                                 | ROSCOE R. SMITH    | J. M. KARNS                      |
| ODELL                                                  | V. T. SMITH        | HELEN LYONS                      |
| OLNEY                                                  | H. W. HOSTETTLER   | B. Y. ALVIS                      |
| ONARGA                                                 |                    |                                  |
| HIGH SCHOOL                                            | S. E. LEMARR       | MARGUERITE D. THOMP-<br>SON      |
| GRAND PRAIRIE SEMINARY                                 |                    | H. H. FROST, <i>Pres.</i>        |
| OREGON                                                 |                    |                                  |
| OTTAWA Tp.                                             |                    | CHARLES H. KINGMAN               |
| PALATINE                                               | CHESTER WELLS      | HELEN HANNAN                     |
| PALESTINE                                              | J. M. WATTERS      | R. A. FRALEY                     |
| PANA Tp.                                               |                    | W. E. ANDREWS                    |
| PARIS                                                  | T. W. B. EVERHART  | T. J. BUCHER                     |
| F. W. PARKER SCHOOL ( <i>Chicago</i> )                 |                    | FLORA J. COOKE                   |
| PAWNEE Tp.                                             |                    | W. B. ROSE                       |
| PAWPAW                                                 | W. C. SUFT         | JULIA H. SUFT                    |
| PAXTON                                                 | O. J. BAINUM       | E. A. MESSENGER                  |
| PEKIN                                                  | J. J. CROSBY       | W. F. SHIRLEY                    |
| PEORIA                                                 |                    |                                  |
| AVERYVILLE HIGH                                        |                    |                                  |
| SCHOOL                                                 | HARRY E. ILER      | HAZEL BROAD                      |
| BRADLEY POLY. INST.                                    |                    | T. C. BURGESS, <i>Director</i>   |
| CENTRAL HIGH SCHOOL                                    | G. T. SMITH        | A. W. BEASLEY                    |
| MANUAL TRAINING HIGH SCHOOL                            |                    | WILLIAM N. BROWN                 |
| PETERSBURG                                             | H. A. PAINE        | H. H. STANCH                     |
| PHILLIPS HIGH SCHOOL                                   |                    |                                  |
| ( <i>Chicago</i> )                                     | ELLA FLAGG YOUNG   | SPENCER R. SMITH                 |
| PITTSFIELD                                             | J. C. REEDER       | NELLIE A. MOORE                  |
| PLAINFIELD                                             | H. J. BASSLER      | VERNE PERRY                      |
| PLANO                                                  | R. E. LOCKE        | H. L. TATE                       |
| POLO                                                   | H. B. URBAN        | ETHEL C. LOWRY                   |
| PONTIAC Tp.                                            |                    | ARTHUR VERNER                    |
| PRINCETON Tp.                                          |                    | W. R. SPURRIER                   |
| PROPHETSTOWN                                           | P. F. GROVE        | W. W. JENNINGS                   |
| PROVISO Tp. ( <i>Maywood</i> )                         |                    | JOHN E. WITMER                   |
| QUINCY                                                 |                    |                                  |
| HIGH SCHOOL                                            | E. G. BAUMAN       | ZENS L. SMITH                    |
| ST. MARY'S ACADEMY                                     |                    | MOTHER MARY PETRA                |

| SCHOOL                               | SUPERINTENDENT    | PRINCIPAL             |
|--------------------------------------|-------------------|-----------------------|
| RANTOUL                              | E. H. MILLER      | JESSIE MCHARRY        |
| RIDGEFARM                            | LOUIS A. TOHILL   | ETHEL GWINN           |
| RIVERSIDE                            | A. F. AMES        | T. H. ZIEGLER         |
| ROBINSON Tp.                         |                   | J. O. MARBERRY        |
| ROCHELLE                             | LEWIS A. MAHONEY  | THOMAS R. JOHNSTON    |
| ROCK FALLS                           | E. O. PHARES      | BESS BURHAUS          |
| ROCKFORD                             | R. G. JONES       | C. P. BRIGGS          |
| ROCK ISLAND                          |                   |                       |
| HIGH SCHOOL                          | H. B. HAYDEN      | A. J. BURTON          |
| AUGUSTANA COLLEGE ACADEMY            |                   | C. W. FOSS            |
| VILLA DE CHANTAL                     | MOTHER BORGIA     | SISTER MARY AGNES     |
| ROODHOUSE                            | J. O. STANBERRY   | C. A. WHITESIDE       |
| ROSEVILLE Tp.                        |                   | H. L. KESSLER         |
| ROSSVILLE                            | I. A. SMOTHERS    | R. D. BOWDEN          |
| RUSHVILLE                            | C. E. KNAPP       | LAURA L. KNOWLES      |
| RUTLAND                              | W. E. GUTTERIDGE  | JANET ARIE            |
| ST. CHARLES                          | FAITH MCAULEY     | MINNIE LANGWILL       |
| ST. ELMO                             | R. W. JENNINGS    | DEAN PARRILL          |
| ST. MARY'S ACADEMY (Quincy)          |                   | MOTHER MARY PETRA     |
| ST. MARY'S HIGH SCHOOL (Bloomington) |                   | SISTER MARIE ALPHONSE |
| SANDWICH                             | W. W. WOODBURY    | MAUD WEBSTER          |
| SAVANNA Tp.                          |                   | C. M. HIGGINS         |
| SAYBROOK                             | GEORGE E. WHITE   | CONSTANCE MITCHELL    |
| SHEFFIELD                            | J. H. MARTIN      | LAURA SCHOETTLER      |
| SHELBYVILLE                          | A. F. LYLE        | B. H. GAULT           |
| SHELDON                              | RUSH CARLEY       | S. J. BERKEMA         |
| SIDELL Tp.                           |                   | SHERMAN CASS          |
| SOUTHERN COLLEGIATE INST. (Albion)   |                   | FRANK B. HINES, Pres. |
| SPARTA                               | F. C. SCOTT       | ST. J. W. WILTON      |
| SPRINGFIELD                          |                   |                       |
| HIGH SCHOOL                          | H. S. MAGILL, JR. | F. D. THOMSON         |
| URSULINE ACADEMY                     |                   | MOTHER PAUL           |
| STANFORD                             | B. T. ADKINS      | LILLY STIEGELMEIER    |
| STAUNTON                             | WILLIAM E. ECCLES | SARA M. MARTY         |
| STERLING Tp.                         |                   | E. T. AUSTIN          |
| STOCKLAND Tp.                        |                   | OTTIS HOSKINSON       |
| STOCKTON                             | J. C. MYERS       | PARKER NOLL           |
| STONINGTON                           | O. A. DRAKE       | EDITH SCHROEDER       |
| STREATOR Tp.                         |                   | O. A. RAWLINS         |
| SULLIVAN                             | T. H. FINLEY      | A. L. SMITH           |
| SYCAMORE                             | K. D. WALDO       | EDNA KOCH             |
| TAYLORVILLE Tp.                      |                   | R. G. BEALS           |
| THORNTON Tp. (Harvey)                |                   | L. W. SMITH           |
| TISKILWA                             |                   |                       |
| ARISPIE-INDIANTOWN Tp.               |                   | A. W. HUSSEY          |
| TOULON Tp.                           |                   | EUGENE L. MENDENHALL  |
| TULEY HIGH SCHOOL                    |                   |                       |
| (Chicago)                            | ELLA FLAGG YOUNG  | FRANKLIN P. FISK      |
| TUSCOLA                              | STANLEY MORRIS    | J. CLEM HAMMOND       |
| UNION ACADEMY (Anna)                 |                   | H. WALLACE STEVENS    |
| UNIVERSITY HIGH SCHOOL (Chicago)     |                   | F. W. JOHNSON         |
| UPPER ALTON                          |                   |                       |
| WESTERN MIL. ACAD.                   | A. M. JACKSON     | GEORGE D. EATON       |
| UREANA                               | A. P. JOHNSON     | M. L. FLANINGAM       |
| URSULINE ACADEMY (Springfield)       |                   | MOTHER PAUL           |
| VANDALIA                             | LEWIS OGILVIE     | ERNEST T. JACKSON     |
| VERMILION GROVE                      |                   |                       |
| VERMILION ACADEMY                    |                   | EDITH SHUGART         |
| VILLA DE CHANTAL                     |                   |                       |
| (Rock Island)                        | MOTHER BORGIA     | SISTER MARY AGNES     |
| VILLA GROVE                          | E. L. LAWSON      | W. F. WOLLENHAUPT     |
| VIRDEN                               | CLYDE SLOAN       |                       |
| VIRGINIA                             | A. M. SANTEE      | LAURA MASON           |
| WALLER HIGH SCHOOL                   |                   |                       |
| (Chicago)                            | ELLA FLAGG YOUNG  | OLIVER S. WESTCOTT    |
| WALNUT                               | T. F. McLAMARRAH  | PAUL C. MOON          |
| WARREN                               | H. H. HAGEN       | O. M. BUSER           |



| SCHOOL                                  | SUPERINTENDENT    | PRINCIPAL          |
|-----------------------------------------|-------------------|--------------------|
| WASHBURN                                | HARRY ANDREWS     | L. ADA KREIDER     |
| WASHINGTON                              | P. M. SMITH       | IRA W. DINGLELINE  |
| WATERLOO                                | JAMES E. RAIBOURN | CHARLES F. STEINER |
| WATSEKA                                 | L. W. HAVILAND    | MARY J. LAYCOCK    |
| WAUKEGAN Tp.                            |                   | W. C. KNOELK       |
| WENONA                                  | E. F. NICHOLS     | J. GRACE WALKER    |
| WEST CHICAGO                            | H. H. KIRKPATRICK | NORMA CONYNE       |
| WEST HIGH SCHOOL<br>(Aurora)            | C. M. BARDWELL    | K. C. MERRICK      |
| W. ILL. ST. NORMAL ACAD. (Macomb)       |                   | W. P. MORGAN       |
| WESTERN MILITARY ACAD.<br>(Upper Alton) | A. M. JACKSON     | GEORGE D. EATON    |
| WESTFIELD COLLEGE ACAD.                 |                   | H. M. TIPSWORD     |
| WHEATON<br>HIGH SCHOOL                  | J. B. RUSSELL     | ELLEN M. GREGG     |
| WHEATON COLLEGE ACADEMY                 |                   | O. D. TYNER        |
| WHIPPLE ACADEMY (Jacksonville)          |                   | WALTER L. HARRIS   |
| WHITE HALL                              | HEYWOOD COFFIELD  | HEYWOOD COFFIELD   |
| WILMINGTON                              | GUY W. BEDELL     | BERTHA M. OLDRED   |
| WINCHESTER                              | J. B. HENDRICKS   | BERTHA DUERKOP     |
| WOODSTOCK                               | E. C. THOMAS      | B. M. ALDRICH      |
| WYOMING                                 | CLARENCE W. PRATT | JOHN G. STRIEDER   |
| YORKVILLE                               | T. A. GALLAHER    | EDITH J. ANDERSON  |

## PARTIALLY ACCREDITED SCHOOLS

|                                 |               |                        |
|---------------------------------|---------------|------------------------|
| BYRON                           | H. V. LYNN    | EDNA KING              |
| KEITHSBURG                      | E. C. KLOUTZ  | W. J. STONKS           |
| KNOXVILLE<br>ST. ALBAN'S SCHOOL |               | LUCIAN F. SENNETT      |
| MARTINSVILLE                    | HAROLD BRIGHT | HARRY L. RYAN          |
| RAYMOND                         | W. F. GROTTIS | FRANK J. DUFRAIN       |
| ST. ALBAN'S SCHOOL (Knoxville)  |               | L. B. HASTINGS, Rector |
| SALEM                           | H. J. BLUE    | E. C. FRANKLIN         |

## DESCRIPTION OF SUBJECTS ACCEPTED FOR ADMISSION

The amount of work in each of the foregoing subjects which corresponds to the minimum number of credits assigned is shown by the description of subjects below.

1. AGRICULTURE.—Courses in agriculture should be arranged for periods of not less than 36 weeks. Such a course may be accepted for one unit of entrance credit, and two such courses may be accepted for two units, provided the work covered by each course is so closely related in its parts as to constitute one of the generally accepted divisions now recognized in agricultural work. At least one-half the time should be devoted to laboratory work, and note-books should be presented.

2. ALGEBRA.—Fundamental operations, factoring, fractions, simple equations, involution, evolution, radicals, quadratic equations and equations reducible to the quadratic form, surds, theory of exponents, and the analysis and solution of problems involving these.

3. **ASTRONOMY.**—In addition to a knowledge of the descriptive matter in a good text-book, there must be some practical familiarity with the geography of the heavens, with the various celestial motions, and with the positions of the conspicuous naked-eye heavenly bodies.

4. **BOOKKEEPING.**—The unit of work in bookkeeping for college entrance should consist of a working knowledge of both single and double entry bookkeeping for the usual lines of business. The student should be able to change his books from single to double entry and from individual to proprietorship. At least one set of transactions should be kept by single entry and at least two sets by double entry in which the uses of the ordinary bookkeeping books and commercial papers should be involved. The student should be drilled in the making of profit and loss statements and of balance sheets and should be able to explain the meanings of the items involved in both kinds of instruments. The work should be done under the immediate supervision of a teacher and the student should devote at least ten periods of not less than forty minutes full time in class each week for one academic year.

5. **BOTANY.**—A familiar acquaintance with the general structure of plants, and of the principal organs and their functions, derived to a considerable extent from a study of the objects, is required; also a general knowledge of the main groups of plants; and the ability to classify and name the more common species. Laboratory note-books and herbarium collections should be presented.

6. **BUSINESS LAW.**—The amount of business law which is accepted is indicated by the ground covered in any of the ordinary text-books on the subject, such as Spencer's *Elements of Commercial Law*, Burdick's *Business Law*, and White's *Elements of Commercial Law*.

7. **CHEMISTRY.**—The instruction must include both text-book and laboratory work. The work should be so arranged that at least one-half of the time shall be given to the laboratory. The course as it is given in the best high schools in one year will satisfy the requirements of the University for the one unit for admission. The laboratory notes, bearing the teacher's indorsement, must be presented as evidence of the actual laboratory work accomplished. Candidates for admission may be required to demonstrate their ability by laboratory tests.

8. **CIVICS.**—Such an amount of study of the American Government, its history and interpretation, as is indicated by any of the



usual high school text-books on civil government, is regarded as sufficient for one term. The work may advantageously be combined with the elements of political economy.

9. **COMMERCIAL GEOGRAPHY.**—The amount and character of the work accepted in this subject is indicated by the scope of such books as Redways' Commercial Geography, Adam's smaller book on the same subject, the text-books of Brigham, or Robinson, or Trotter's work.

10. **DOMESTIC SCIENCE.**—(a) An equivalent of 180 hours of prepared work with at least two recitation periods a week in foods. (b) An equivalent of 180 hours of prepared work with at least one recitation period a week in clothing. (c) An equivalent of 180 hours of prepared work with at least two recitation periods a week on the home. (Two periods of laboratory work are considered equivalent to one period of prepared work.) Of the foregoing, (a) will be accepted as a unit's work; or two half units taken from (a) and (b), or (a) and (c), or (b) and (c) will be accepted as a unit's work. The work is to be done by trained teachers with individual equipment, as determined by inspection.

11. **DRAWING.**—Free-hand or mechanical drawing, or both. Drawing-books or plates must be submitted. The number of credits allowed depends on the quantity and quality of the work submitted.

12. **ECONOMICS.**—The principles of economics, with economic history, as given in any good elementary text-book.

13. **ENGLISH COMPOSITION AND RHETORIC.**—Correct spelling, capitalization, punctuation, paragraphing, idiom, and definition; the elements of rhetoric. The candidate will be required to write two paragraphs of about one hundred fifty words each to test his ability to use the English language. This work counts for one unit.

14. **ENGLISH LITERATURE.**—(a) Each candidate is expected to have read certain assigned literary masterpieces, and will be subjected to such an examination as will determine whether or not he has done so. With a view to a large freedom of choice, the books provided for reading are arranged in the following groups, from which at least ten units are to be selected, two from each group. Each unit is here set off by semicolons.

I. The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Iliad,

with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; the *Odyssey*, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; Virgil's *Aeneid*. The *Iliad*, the *Odyssey*, and the *Aeneid* should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.

II. Shakespeare's *Merchant of Venice*; *Midsummer Night's Dream*; *As You Like It*; *Twelfth Night*; *Henry the Fifth*; *Julius Caesar*.

III. Defoe's *Robinson Crusoe*, Part I; Goldsmith's *Vicar of Wakefield*; Scott's *Ivanhoe* or *Quentin Durward*; Hawthorne's *House of Seven Gables*; Dicken's *David Copperfield* or *Tale of Two Cities*; Thackeray's *Henry Esmond*; Mrs. Gaskell's *Cranford*; George Eliot's *Silas Marner*; Stevenson's *Treasure Island*.

IV. Bunyan's *Pilgrim's Progress*, Part I; The Sir Roger de Coverley Papers in the *Spectator*; Franklin's *Autobiography* (condensed); Irving's *Sketch Book*; Macaulay's *Essays on Lord Clive and Warren Hastings*; Thackeray's *English Humorists*; selections from Lincoln, including the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, and the Letter to Horace Greeley, with a brief memoir or estimate; Parkman's *Oregon Trail*; either Thoreau's *Walden* or selections from Huxley's *Lay Sermons*; Stevenson's *Inland Voyage and Travels with a Donkey*.

V. Palgrave's *Golden Treasury* (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, Burns; Gray's *Elegy in a Country Churchyard* and Goldsmith's *Deserted Village*; Coleridge's *Ancient Mariner* and Lowell's *Vision of Sir Launfal*; Scott's *Lady of the Lake*; Byron's *Childe Harold*, Canto IV, and *Prisoner of Chillon*; Palgrave's *Golden Treasury* (First Series), Book IV, with especial attention to Wordsworth, Keats, and Shelley; Poe's *Raven*, Longfellow's *Courtship of Miles Standish*, Whittier's *Snow Bound*; Macaulay's *Lays of Ancient Rome* and Arnold's *Sohrab and Rustum*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, *The Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Goods News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*.



(b) In addition to the foregoing the candidate will be required to present a careful, systematic study, with supplementary reading, of the history of either English or American literature.

(c) The candidate will be examined on the form and substance of certain books in addition to those named under (a). For 1914 the books will be selected from the list below. The examination will be of such a character as to require a minute study of each of the works named in order to pass it successfully. The list is:

Shakespeare's *Macbeth*; Milton's *Comus*, *L'Allegro*, and *Il Penseroso*; Burke's *Speech on Conciliation with America*, or Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; Macaulay's *Life of Johnson*, or Carlyle's *Essay on Burns*.

The work outlined in (a), (b), and (c) counts for two units.

(d) The three units in English composition, rhetoric, and literature, as described above, are required for all students. A fourth unit may be obtained for one full year's additional work in the study of English and American authors.

15. FRENCH.—*First year's work*.—Elementary grammar, with the more common irregular verbs. Careful training in pronunciation. About 100 pages of easy prose should be read.

*Second year's work*.—Advanced grammar, with all the irregular verbs. Elementary composition, and conversation. About 300 pages of modern French should be read.

*Third year's work*.—Intermediate composition, and conversation. About 500 pages of standard authors should be read, including a few classics.

*Fourth year's work*.—Advanced composition, and conversation. Standard modern and classical authors should be read and studied to the extent of 700 pages.

16. GEOLOGY.—The student must show familiarity with the principles of dynamic and structural geology, and some acquaintance with the facts of historical geology as presented in Scott's *Introduction to Geology*, Brigham's *Text-book of Geology*, or an equivalent, together with at least an equal amount of time spent in laboratory and field work. The laboratory work should follow one or more of the lines indicated below, and note-books should be presented showing the character and amount of work done. (a) Studies of natural phenomena occurring in the neighborhood which illustrate the principles of dynamic geology. Each study should

include a careful drawing of the object and a written description of the way in which it was produced. (b) Studies of well-marked types of crystalline, metamorphic, and sedimentary rocks which will enable the student to recognize each type and state clearly the conditions under which it was formed. (c) Studies of minerals of economic value, including the characteristics of each, its origin, and the uses to which it is put. (d) Studies of the types of soil occurring in the neighborhood, including the origin of each and the cause of differences in appearance and fertility.

17. GEOMETRY.—(a) *Plane Geometry*. Special emphasis is placed on the ability to use propositions in the solution of original numerical exercises and of supplementary theorems.

(b) *Solid and Spherical Geometry*. Applications to the solution of original exercises are emphasized.

18. GERMAN.—It is recommended that pupils be trained to understand spoken German and to reproduce freely in writing and orally what has been read. Whatever method of teaching is used, however, a thoro knowledge of grammar is expected. No attempt is made in what follows to give more than a general outline for the work of successive years, but the German department welcomes inquiries from teachers who wish further suggestions in the planning of courses.

*First Year's Work*.—At the end of the year pupils should be able to read intelligently and with accurate pronunciation simple German prose, to translate it into idiomatic English, and to answer in German easy questions on the passage read. A few short poems may well be memorized. Elementary grammar should be mastered up to the subjunctive as arranged in most books for beginners. Easy prose composition rather than the writing of forms will be the test of this grammatical work in entrance examinations given by the University.

*Second's Year's Work*.—Only modern writers should be read, preference being given to material which has a distinctly German atmosphere and which lends itself readily to conversational treatment in the class room. The regular recitations should afford constant oral and written drill on the elementary grammar of the previous year. In addition, the beginner's book should be completed, but more importance is attached to accuracy and facility in simple modes of expression than to a theoretical knowledge of advanced syntax.



*Third Year's Work.*—Most of the time should still be devoted to good modern prose. There should be some work in advanced prose composition—based on German models—and the daily recitations should continue to afford abundant oral practise. Pupils ought by this time to understand spoken German fairly well.

*Fourth Year's Work.*—At the end of this year a pupil should be able to read at sight any prose or verse of moderate difficulty. He should also be able to express himself orally or in writing with considerable readiness and a high degree of accuracy. It is recommended that work in composition take the form of free reproduction of portions of the texts studied rather than translation of English selections. The reading should be divided about equally between modern and classical authors.

19. GREEK.—*First Year's Work.*—The exercises in any of the beginning books, and one book of the *Anabasis* or its equivalent.

*Second year's work.*—Two additional books of the *Anabasis* and three of Homer, or their equivalents, together with an amount of Greek prose composition equal to one exercise a week for one year.

*Third year's work.*—Three additional books of the *Iliad*, three of the *Odyssey*, and Books VI, VII, VIII of Herodotus, or an equivalent from other authors.

20. HISTORY.—One, two, or three units may be presented, to be chosen from the following list:

Ancient history to 800 A. D., one unit.

Medieval and modern history, one unit.

English history, one-half or one unit.

American history, one-half or one unit.

Examinations for entrance will be given in all these subjects. The examination for each unit is intended to cover one full year of high school work.

21. LATIN.—*First year's work.*—Such knowledge of inflections and syntax as is given in any good preparatory Latin book, together with the ability to read simple fables and stories.

*Second year's work.*—Four books of Cæsar's *Gallic War*, or its equivalent in Latin of equal difficulty; the ability to write simple Latin based on the text.

*Third year's work.*—Six orations of Cicero; the ability to write simple Latin based on the text; the simpler historical references and the fundamental facts of Latin syntax.

*Fourth year's work.*—Six books of Virgil, with history and mythology; the scansion of hexameter verse.

22. **MANUAL TRAINING.**—The requirement for one unit is the equivalent of 360 forty-minute periods in manual training following the syllabus prepared by the manual training section of the High School Conference.

23. **MUSIC.**—Credit in music is not accepted on certificate, but only by examination at the University, and only for admission to the School of Music. In the examination for two units in *piano*, students are required to play the following or the equivalent: Simple scales and arpeggios at fairly rapid tempo; scales in double octaves at a moderate speed; Bach, two-part invention; Czerny, Op. 229; an easy sonata of Haydn, Mozart, or Beethoven. In the examination for two units in *voice*, students are required to sing the following or the equivalent: Simple scales and arpeggios; studies selected from Concone, Sieber, Panofka, and Panseron; songs selected from Schubert, Schumann, and Mendelssohn. In the examination for two units in *violin*, students are required to play the following or the equivalent: Gordon's Fountain Studies; Hermann's Scale Studies; Wohlfahrt's Etudes, Book I; Kayser's Etudes; Pleyel, Duet; selections from Weiss and Blumenstengel; miscellaneous pieces by Dacla, Papini, Weidig, Sitt, etc.

24. **PHYSICS.**—One year's high school work covering the elements of physical science as presented in the best of the current high school text-books of physics. Laboratory practise in elementary quantitative experiments should accompany the text-book work. The candidate's laboratory note-book will be considered as part of the examination.

25. **PHYSICAL GEOGRAPHY.**—The amount and character of the work required may be seen by referring to the texts of Gilbert and Brigham, or Davis; the recitations must be supplemented by at least an equal amount of time devoted to laboratory work. The laboratory exercises should follow one or more lines such as are indicated below. Each student should present a note-book showing what he has done.

(a) Studies in mathematical geography in which map and scale only are used. These should embrace such topics as length of a degree in longitude in various latitudes; length and breadth of continents, etc., in degrees and miles; relative latitudes of places; distances between cities, etc., in degrees and miles; difference in length



of parallels and meridians; problems in time; location of time belts, etc.

(b) Studies of local topographic features which illustrate the various phases of stream work. Each study should include a drawing or topographic map of the object, and a full, clear description of the way in which it was formed.

(c) Studies of glacial deposits as shown in terminal and ground moraines, kames, eskers, etc.; distribution of dark and light colored soils; occurrences of lakes, ponds, gravel beds, clay banks, and waterbearing strips of sand and gravel.

(d) Studies of stream work as shown in the topographical sheets which may be obtained from the United States Geological Survey at a nominal cost.

(e) Studies of the form, size, direction and rate of movement of high and low barometer areas, and the relation of these to direction of wind, character of cloud, distribution of heat, and amount of moisture in the air, as shown in the daily weather maps. Later these studies should lead to the making of weather maps from the data furnished by the daily papers, and to local prediction of weather changes based on the student's own observation.

(f) Studies of the climate of various countries compared with our own, the necessary data being derived from such topographic, rainfall, wind, current, and temperature maps as are found in Sydow-Wagner's or Longman's atlases.

26. PHYSIOLOGY.—For one-half unit: The anatomy, histology, and physiology of the human body and the essentials of hygiene, taught with the aid of charts and models to the extent shown in Martin's Human Body (Briefer Course). For more than one-half unit, the course must include practical laboratory work.

27. SPANISH.—*First year's work*.—Elementary grammar, including thoro drill in the irregular verbs; careful training in pronunciation, and translation of simple Spanish when spoken; reading of about 100 pages of easy prose; simple composition and dictation.

*Second year's work*.—In addition to the foregoing, about 300 pages of modern prose; elementary syntax; dictation, composition, and translation of spoken Spanish continued.

28. TRIGONOMETRY.—The work should cover the field of plane trigonometry, as given in standard text-books, including the solu-

tion of right and oblique triangles. Special emphasis is placed upon the solution of practical problems, trigonometric identities, and trigonometric equations.

29. ZOOLOGY.—The instruction must include laboratory work equivalent to four periods a week for a half-year, besides the time required for text-book and recitation work. Note-books and drawings must be presented to show the character of work done and the types of animals studied. The drawings are to be made from the objects themselves, not copied from illustrations, and the notes are to be a record of the student's own observations of the animals examined. The amount of equipment and the character of the surroundings must, of course, determine the nature of the work done and the kind of animals studied; but in any case the student should have at least a fairly accurate knowledge of the external anatomy of each of eight or ten animals distributed among several of the larger divisions of the animal kingdom, and should know something of their life histories and of their more obvious adaptations to environment. It is recommended that special attention be given to such facts as can be gained from a careful study of the living animal. The names of the largest divisions of the animal kingdom, with their most important distinguishing characters, and with illustrative examples selected, when practicable, from familiar forms, ought also to be known.



# GRADUATION---FIRST DEGREES

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## THE BACHELOR'S DEGREE

A bachelor's degree is conferred upon any student who satisfactorily completes the course of study described under one of the various colleges and schools, doing either the first three years, or the last year, of his work in residence at the University.

### RESIDENCE REQUIREMENT

If the student is in residence at the University for one year only, that year's work must be taken in the college from which the degree is expected. No person will be recommended for a degree by the faculty of any college in the University unless he has been a regularly registered student in that college for at least one year.

### REQUIREMENTS FOR GRADUATION

A candidate for a bachelor's degree must pass in the subjects marked *prescribed* in his chosen course, and must conform to the directions given in connection with that course in regard to electives. In the College of Liberal Arts and Sciences and the College of Agriculture, credit for 130 hours is required for graduation. In the College of Engineering, in the College of Law, in the Library School, and in the School of Music, the candidate must complete the course of study as laid down.

### MILITARY SCIENCE AND PHYSICAL TRAINING

The number of hours required includes, for men, five in military drill and tactics and two in physical training; and for women, three in physical training. Men excused from the military requirements, and women who do not take the course in physical training, must elect instead an equivalent number of hours in other subjects.

### THESIS

In all cases in which a thesis is required,\* the subject must be announced not later than the first Monday in November, and the completed thesis must be submitted to the dean of the proper col-

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\*See requirements for graduation in the various colleges.

lege by June 1. The work must be done under the direction of the professor in whose department the subject belongs, and must be in the line of the course of study for which a degree is expected. The thesis must be presented upon regulation paper; it is deposited in the library of the University.

#### SECOND BACHELOR'S DEGREE

A student who has already received one bachelor's degree may receive a second bachelor's degree, provided that all specified requirements for both degrees be fully met, and provided also that the course offered for the second degree include at least 30 semester hours not counted for the first degree.

#### LIST OF FIRST DEGREES

1. The degree of BACHELOR OF ARTS is conferred on those who complete a course in literature and arts, or certain courses in science, in the College of Liberal Arts and Sciences.

2. The degree of BACHELOR OF SCIENCE is conferred on those who complete a course in the College of Engineering or in the College of Agriculture. This degree is conferred on a graduate of the College of Liberal Arts and Sciences who completes a course in ceramics or in chemistry and may be conferred on graduates from other courses in this College on recommendation of the faculty.

3. The degree of BACHELOR OF LAWS is conferred on those who complete the course in the College of Law.

4. The degree of DOCTOR OF LAW is conferred on those who complete the course in the College of Law, satisfying certain special requirements additional to those for the degree of Bachelor of Laws.

5. The degree of BACHELOR OF LIBRARY SCIENCE is conferred on those who complete the course in the Library School.

6. The degree of BACHELOR OF MUSIC is conferred on those who complete one of the courses in the School of Music.

7. The degree of DOCTOR OF MEDICINE is conferred on those who complete the course in the College of Medicine.

8. The degree of DOCTOR OF DENTAL SURGERY is conferred on those who complete the course in the College of Dentistry.

9, 10. The degree of GRADUATE IN PHARMACY, or of PHARMACEUTICAL CHEMIST, is conferred on those who complete the shorter and the longer courses, respectively, in the School of Pharmacy.



# HONORS AND COMPETITIONS

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## UNIVERSITY HONORS

The University gives public official recognition to such students as attain a high grade of scholarship by the following system of honors:

*Preliminary Honors* are assigned at the completion of the sophomore year on the basis of the average of the grades received during the freshman and sophomore years in all studies except Military and Physical Training. The number of persons to whom honors are awarded may not exceed one-tenth of the membership of the sophomore class. A failure in any subject disqualifies a student from receiving these honors. Preliminary Honors afford an opportunity for sophomores to secure recognition for high scholarship without waiting for graduation.

*Final Honors\** are assigned on graduation on the basis of the average of the grades received during the junior and senior years. The number of persons to whom final honors are awarded may not exceed one-tenth of the membership of the senior class. A failure in any subject during the junior and senior years disqualifies a student from receiving these honors. Final honors are designed especially to favor students whose preparatory education has been so imperfect as to prevent them from receiving preliminary honors.

*Special Honors* are awarded at the close of the senior year. No student may receive such honors who has not completed, before the beginning of his senior year, at least twenty hours' work in the subject, or group of allied subjects, in which the honors are proposed; he must complete thirty hours' work in the same subject, or group of allied subjects, by the end of his senior year, must do such other work as the professor in charge may assign, and must prepare an acceptable thesis. No student is eligible for special

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\**Honors on Graduation.*—The rules governing honors on graduation in the College of Liberal Arts and Sciences are stated on pages 174, 175 following. The rules given above apply to the other undergraduate colleges and schools of the University.

honors who, during the senior year, has received a grade of less than eighty per cent in any subject. Special honors are planned for especially brilliant students who prefer to concentrate their efforts upon a special course. A student may be a recipient of both final and special honors.

The names of students receiving honors are published in the Annual Register of the University. (See Part V.)

## DEBATING AND ORATORY

The University engages yearly in four intercollegiate debates, the teams for which are chosen in a series of competitive preliminaries to which all students are eligible. Through the generosity of Hon. William B. McKinley a gold watch-fob is presented to every speaker who represents the University, either in debate or in oratory.

THE CENTRAL DEBATING CIRCUIT OF AMERICA is an association formed by the universities of Illinois, Iowa, Minnesota, Nebraska, and Wisconsin. It holds a debate at each university on the Friday evening following the Thanksgiving recess.

THE STATE UNIVERSITY DEBATING LEAGUE consists of the state universities of Illinois, Indiana, and Ohio. Under its auspices three debates are held upon the second Friday in March, each university sending out an affirmative and a negative team.

THE NORTHERN ORATORICAL LEAGUE, consisting of Northwestern University, Oberlin College, and the state universities of Illinois, Iowa, Michigan, Minnesota, and Wisconsin, holds an annual contest on the first Friday evening in May. The contest for 1914 will be held on May 1, at the University of Wisconsin, Madison, Wisconsin. The winner receives the Lowden testimonial of one hundred dollars, and the speaker awarded second place, fifty dollars. The Illinois representative is selected in competitive contests open to all undergraduates.

THE INTERCOLLEGIATE PEACE ASSOCIATION holds annual state and inter-state oratorical contests to which representatives of this University are eligible. Orations must be upon some phase of the peace question. Cash prizes are offered in both contests.

A FRESHMAN-SOPHOMORE DEBATE and an INTER-SOCIETY DECLAMATION CONTEST are held yearly.

The names of students who represented the University in debate and oratory in 1912-13 are given in the list of honors at the end of this volume.



### THE INTERSCHOLASTIC ORATORICAL PRIZE

A medal of the value of twenty dollars, and two medals of the value of ten dollars each, are offered annually by the University to the high schools of the State for the best orations delivered in a competitive contest between their representatives. This contest takes place in the spring at the time of the interscholastic athletic meet—in 1914, on May 15.

### THE BRYAN PRIZE

In 1898 Mr. William Jennings Bryan gave to the University the sum of two hundred fifty dollars, from the interest on which a prize of twenty-five dollars is offered biennially for the best essay on the science of government. The contest is open to all matriculated undergraduate students. The essays may not be less than three thousand, nor more than six thousand, words in length, and must be left at the President's office not later than the second Wednesday in May. The prize was offered for the first time in 1901. It will be offered next in 1915.

### B'NAI B'RITH PRIZES

The Champaign and Urbana lodge of the Independent Order of B'nai B'rith has donated to the University the sum of fifty dollars, to be awarded in prizes to students of the University for essays on Jewish subjects. The sum named is the second of five annual contributions to be given for this purpose. For information in regard to the conditions governing the award of the prizes, address the Registrar, University of Illinois, Urbana, Illinois.

### ARCHITECTURE

#### THE FRANCIS J. PLYM FELLOWSHIP IN ARCHITECTURE

By the generosity of Mr. Francis J. Plym, of Niles, Michigan, a graduate of the University of Illinois of the class of 1897, the Trustees have been enabled to establish a fellowship for the advanced study of architecture. The stipend attached to this fellowship is \$1,000, awarded annually by competition in Architectural Design. The holder of the fellowship is required to spend a year in study and travel abroad. For further information address the Department of Architecture.

#### THE JOSEPH C. LLEWELLYN PRIZE IN ARCHITECTURAL ENGINEERING

In June, 1913, Mr. Joseph C. Llewellyn, of Chicago, a graduate of the University of the class of 1877, established, for a period of

four years, a prize of fifty dollars per annum for a problem in design, the competition being limited to students in architectural engineering.

THE PRIZE IN ARCHITECTURE of the American Academy in Rome is open for competition among qualified undergraduates and graduates of certain American architectural schools, including that of the University of Illinois. This prize grants three years of residence and travel abroad for the study of classic and Renaissance architecture.

## MILITARY CONTESTS AND PRIZES

### THE UNIVERSITY BRONZE MEDALS

Bronze medals typical of the University and its Military Department are awarded by the University to the members of the infantry companies and artillery and signal detachments which shall score the greatest number of points at the annual competitive drill, held at some time between May 15 and May 31. The members of the company rifle team making the highest score at gallery target practise are also awarded medals. The medals so awarded become the permanent property of the recipients. A complete roster of the winning organizations is published in the Annual Register of the University for the following year. (See Part V.)

### THE UNIVERSITY GOLD MEDAL

The Board of Trustees provides annually a gold medal which is to be awarded, at the annual competitive drill held near the close of the year, to the best drilled student, whose property the medal becomes. Each student must have matriculated in the University and must have completed one semester's work in Military 1 with a grade of not less than 90, and three semesters' work in Military 2 with a grade of not less than 95; and he must have an average standing of not less than 85 per cent in all of his other studies for the preceding semester, which standing shall be determined by the Registrar. The name of the winner is published in the Annual Register of the University for the following year. The reward is made for excellence in the same details as in the Hazelton contest.

### THE HAZELTON PRIZE MEDAL

Captain W. C. Hazelton provided in 1890 a medal, which is awarded, at a competitive drill held at some time between May 15 and May 31, to the best drilled student. Each competitor must have been in attendance at the University at least sixteen weeks of



the current college year; must have had less than five unexcused absences from drill; and must present himself for competition in full uniform.

The award is made for excellence in:

1. Erectness of carriage, military appearance, and neatness
2. Execution of the school of the soldier, without arms
3. Manual of arms, with and without numbers

The name of the successful competitor is published in the Annual Register of the University for the following year. He is given a certificate setting forth the facts, and may wear the medal until the fifteenth day of the May following, when he must return it for the next competition.

# LECTURES AND OTHER GENERAL EXERCISES

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A part of the instruction afforded by the University to its students is given through the medium of lectures by distinguished men and women from outside the University faculty and by means of exhibitions, recitals, and other exercises distinct from the regular courses of instruction. A partial list of these exercises for the calendar year 1913 follows. Lectures by members of the University faculty are excluded from this list.

## GENERAL UNIVERSITY EXERCISES

### *Convocations*

March 28. In honor of the visit of the members of the legislature to the University.

April 30. Dr. WASHINGTON GLADDEN: "The Basis of the New Social Order".

Sept. 24. Annual convocation for freshmen.

Nov. 7. In honor of Dr. NATHAN C. RICKER, Professor of Architecture. Addresses by President EDMUND J. JAMES, and Bishops E. H. HUGHES and F. J. McCONNELL of the Board of Bishops of the Methodist Episcopal Church.

Nov. 19. Commemorative of the delivery by Lincoln of his Gettysburg Address.

### *Dedications*

Feb. 6. FORMAL OPENING OF MUSEUM OF EUROPEAN CULTURE. Addresses by Dr. KUNO FRANCKE, Professor of the History of German Culture, and Curator of the Germanic Museum, Harvard University: "European Aid to American Citizenship", "Erasmus as Thinker and Artist".

Feb. 12. LINCOLN HALL. 9 a. m., Dr. BLISS PERRY, Professor of English Literature, Harvard University, formerly editor of the *Atlantic Monthly*: "Language and Literature". 10 a. m., Dr. FREDERICK J. E. WOODBRIDGE, Professor of Philosophy, Columbia University: "Philosophy". 11 a. m., Dr. ALBERT SHAW, Editor of the *Review of Reviews*: "The Social Sciences". 3 p. m., Dedication Exercises; Dr. HUGH BLACK, Professor of Practical Theology, Union Theological Seminary:



"How Lincoln appeared to Scotchmen"; addresses by Hon. EDWARD F. DUNNE, Governor of Illinois; Mr. W. L. ABBOTT, President of the Board of Trustees; Mr. W. CARBYS ZIMMERMAN, State Architect; and Dr. EDMUND J. JAMES, President of the University. 4:30 p. m., Bishop WILLIAM F. McDOWELL: Dedication of the building to the study of the Humanities, in memory of Abraham Lincoln.

April 16, 17. THE COMMERCE BUILDING. April 16, 2:30 p. m., Mr. HARRY A. WHEELER, President of the Chamber of Commerce of the United States: "The Public Concern in Improved Business Administration"; Mr. S. T. HENRY, Western Manager of the *Engineering Record*: "Some Business Tendencies of the Day"; Mr. CHARLES A. EWING, of Decatur: "The Business Problems of Agriculture". April 16, 7:30 p. m., Reading of a paper by Mr. FREDERICK A. CLEVELAND, Chairman of the President's Commission on Economy and Efficiency: "What a Budget may mean to the Administration". April 17, 9:30 a. m., Mr. ALEXANDER H. REVELL, President of A. H. Revell and Co.: "Commencing Right"; Mr. LEON C. MARSHALL, Dean of the College of Commerce and Administration, University of Chicago: "The Relation of a School of Commerce to the Practical Problems of Business"; Mr. HOWARD ELTING, President of the Chicago Association of Commerce: "The College Graduate a Business Tyro—A Problem of Adjustment"; Mr. B. F. HARRIS, President of the First National Bank of Champaign: Address on behalf of the Illinois Bankers Association; Mr. JULIUS W. HEGELER: Report of the committee of the Illinois Manufacturers' Association on "College Courses in Business Administration". 3 p. m., Dedication Exercises in the Auditorium and the Commerce Building.

May 8, 9. THE TRANSPORTATION BUILDING AND THE LOCOMOTIVE AND MINING LABORATORIES. May 8, 8:00 a. m., Mr. SAMUEL INSULL, President of the Commonwealth Edison Company of Chicago: "The Influence of Engineering on Modern Civilization"; Mr. J. G. PANGBORN, Special Representative of the Baltimore and Ohio Railroad, Baltimore, Maryland: "The History of the Locomotive"; Mr. ROBERT W. HUNT, President of Robert W. Hunt & Co., Chicago: "Economy in the Consumption of Coal". May 9, 9:30 a. m., Railway Conference, with addresses by Mr. B. A. WORTHINGTON, President of the Chicago and Alton Railway Company, Chicago; Hon. W. B. MCKINLEY,

President of the Illinois Traction System, Champaign; Mr. GEORGE R. HENDERSON, of the Baldwin Locomotive Works, Philadelphia, Pa.; Mr. ALBERT REICHMANN, President of the Western Society of Engineers, Chicago; Mr. T. H. GOODNOW, President of the Western Railway Club, Chicago; Mr. H. G. HETZLER, President of the Chicago and Western Indiana Railway Company, Chicago; Mr. W. L. PARK, Vice-President of the Illinois Central Railway Company, Chicago; Mr. ROBERT QUAYLE, General Superintendent of Motive Power, Chicago and Northwestern Railroad Company, Chicago; Mr. SAMUEL O. DUNN, Editor, *Railway Age Gazette*, Chicago. May 9, 9:30 a. m., Mining Conference, with addresses by Mr. FRANCIS S. PEABODY, President of the Peabody Coal Company, Chicago; Mr. A. J. MOORSHEAD, President of the Madison Coal Corporation, St. Louis, Mo.; Mr. E. W. PARKER, Chief Statistician, United States Geological Survey, Washington, D.C.; Mr. R. W. ROBIQUET, Past-President of the Coal Operators' Association, 5th and 9th Districts, Belleville, Illinois. May 9, 4 p. m., Convocation Exercises. Dr. EDMUND J. JAMES, President of the University: Address of Dedication; Mr. W. L. ABBOTT, President of the Board of Trustees: Address on behalf of the University; Mr. WILLARD A. SMITH, Editor of the *Railway and Engineering Review*: Address of Congratulation. (The Mining Conference was continued during the evening of May 9 and the morning of May 10, with addresses by prominent men.)

Nov. 9. Y. W. C. A. BUILDING. BISHOP WILLIAM F. McDOWELL: Dedicatory Address.

*Exercises commemorating the admission of the name of Isaac Funk to the Illinois Farmers' Hall of Fame.*

Jan. 22. Hon. THOMAS C. KERRICK: "Isaac Funk, the Farmer and Legislator"; remarks by Hon. A. P. GROUT, Dr. J. T. MONTGOMERY, and Dr. EUGENE DAVENPORT.

### *Religious Lectures*

Feb. 12-16. Dr. HUGH BLACK: A series of lectures under the auspices of the Y. M. C. A.

Mar. 9-13. Dr. GEORGE R. WENDLING: A series of lectures under the auspices of the Y. M. C. A.

April 28-May 2. Dr. J. H. GARRISON: The annual Bondurant Bible lectures.



*Lectures under the Auspices of the Champaign County Anti-Tuberculosis Health League.*

- Feb. 16. Dr. WILLIAM E. QUINE, Dean of the College of Medicine of the University of Illinois: "Banishment of Infectious Diseases".
- Feb. 23. Dr. L. D. McMICHAEL, of Chicago: "Prevention of Tuberculosis".
- Feb. 26. Dr. H. M. BRACKEN, of the Minnesota State Board of Health: "Problems of Health".
- Mar. 13. Dr. GEORGE T. PALMER, Director of the Springfield Tuberculosis Sanitarium: "Meeting the Tuberculosis Problem in the Smaller City".
- Mar. 30. Dr. A. C. EYCLESHYMER, of Chicago: "Growing Old and Attempts to Prevent It".

*The Star Lecture Course*

- Feb. 15. THE BEN GREET PLAYERS: "The Comedy of Errors".
- Mar. 14. THE ILLINOIS-INDIANA DEBATE.
- Oct. 10. Mr. VICTOR MURDOCK: "Marching with the New Crusaders".
- Dec. 6. Mr. BENJAMIN CHAPIN: "An Interpretation of Lincoln".
- Dec. 13. THE MANDOLIN AND GLEE CLUB CONCERT.

*Exhibitions*

- Feb. 6, 7, 8. ELECTRICAL SHOW. An exhibit of electrical apparatus and appliances under the management of the Electrical Engineering Society, a student organization.
- Feb. 23-Mar. 3. ART EXHIBIT. Water colors and pastels, exhibited by the Philadelphia Water Color Club.
- Mar. 20. EXHIBIT OF PHOTOGRAPHY. Mr. A. G. ELDREDGE: Portraits, landscapes, biological subjects.
- May 15-24. ARCHITECTURAL EXHIBITION. Work in oil, water-color, and pencil by members of the department of architecture.
- May 8, 9, 10. MINING DEMONSTRATION AND EXHIBITION. Mining apparatus and safety appliances exhibited and demonstrated by the department of mining engineering and the student branch of the American Institute of Mining Engineering.
- June 2. TRAVELING SOCIAL EXHIBIT. From the Chicago School of Civics and Philanthropy.
- Oct. 14-28. ARCHITECTURAL EXHIBITION. Sketches and studies in oil, water-color, and pencil by members of the department of architecture.

Nov. 9. FLOWER EXHIBIT. Held in the Floricultural Green-houses.

Nov. 21-22. HISTORY EXHIBIT. Illustrative materials and other aids to the teaching of history in secondary schools.

Nov. 21-23. ARCHITECTURAL EXHIBITION. Work done by the students in all classes of the department of architecture.

December 16, 17, 18. FRUIT EXHIBIT. Held in connection with the Fifty-eighth Annual Convention of the State Horticultural Society.

*Entertainments*

Feb. 11. RECITAL BY ESTHER PLUMB.

Feb. 21, 22. PLAYERS CLUB: Three Irish plays, "The Hourglass", "The Pot of Broth", and "The Workhouse Ward".

April 3. ANNUAL SPRING CONCERT. The Choral Society and University Orchestra, with Bruno Steinel, Cellist.

May 9. LITERARY SOCIETIES: An outdoor play, "The Chaplet of Pan".

May 15. FIFTEENTH ANNUAL MAYPOLE.

May 17. ANNUAL INTERSCHOLASTIC CIRCUS.

May 29. THE COBURN PLAYERS: "Iphigenia in Tauris".

*COLLEGE OF LIBERAL ARTS AND SCIENCES*

*College Assemblies*

Jan. 21. Mr. F. C. ENRIGHT, formerly representative to Buenos Ayres from the Chicago Association of Commerce: "South America". (Other college assemblies were addressed by members of the faculty.)

*Archeology*

Nov. 6-12. SIR WILLIAM RAMSAY, Professor of Humanity, Aberdeen University, Scotland: A series of lectures entitled "A General Description of the Travels and Missionary Methods of the Apostle Paul".

*Botany*

Feb. 20. Dr. E. C. JEFFREY, Professor of Botany, Harvard University: "The Nature of Coal Forming Plants".

Nov. 7. Dr. J. M. COULTER, Head of the Department of Botany, University of Chicago: "The Origin of Monocotyledonous Plants" (before the Botany Club).



*Business Courses*

April 5. PUBLICATIONS BANQUET OF THE BEN FRANKLIN CLUB. Addresses by prominent journalists.

May 20. Mr. GEORGE W. SIMMONS, Vice-President of the Simmons Hardware Co., of St. Louis, Mo.: "Selling Goods at Wholesale" (before the Commercial Club).

Oct. 9. Mr. FRANK P. STOCKBRIDGE, Managing Editor of *Popular Mechanics*: Address before the Ben Franklin Club.

*Ceramics*

Jan. 12-25. TWO-WEEKS COURSE IN CERAMICS, open to manufacturers.

April 18. Mr. WILLIAM P. BLAIR, Secretary of the National Brick Manufacturers' Association: "Modern Methods in Brick Pavement Construction".

*Chemistry*

(Addresses before the University of Illinois Section of the American Chemical Society)

Jan. 21. Dr. A. H. SABIN, Consulting Chemist, National Lead Co., New York City: "The Manufacture of White Lead".

May 21. Dr. JULIUS STIEGLITZ, Director of the Chemical Laboratories and Professor of Chemistry, University of Chicago: "Electric Theory of Oxidation".

*Comparative Philology*

April 5. Dr. GEORGE HEMPL, Professor of German, Leland Stanford Junior University: "The Etruscan Runes".

*Education*

Jan. 14. Mr. E. E. LEWIS, Supervisor of the Training Department, Eastern Illinois State Normal School: "Vocational Education" (before Kappa Delta Pi).

Mar. 6. Mr. F. E. THOMPSON, Professor of Education, University of Colorado: "Potentiality and Stimulus in Education".

April 10. Dr. DAVID FELMLEY, President of the Illinois State Normal University: "Vocational Education" (before Kappa Delta Pi).

April 10. Mr. AUGUST H. KELLEY: "Social Relation between the School and Home".

*English*

March 14-15. Mr. ALFRED NOYES: "The Great Green Table", "The Future of Poetry".

*History*

Jan. 15, 16, 17. Dr. JAMES T. SHOTWELL, Professor of History, Columbia University: "The Industrial Revolution", "The Economic Interpretation of History", "The Achievements and Possibilities of History".

March 5, 7. Dr. CHARLES B. GIBSON: "The Land of the Sultans", "The Green Caucasian Mountains".

April 21, 26. Rev. Dr. ROBERT W. ROGERS, Professor of Hebrew and Old Testament Exegesis, Drew Theological Seminary, Madison, N. J.: "Some Contributions of Ancient Oriental History to Modern Thought".

May 5, 19. Dr. ALBERT FREDERICK POLLARD, Professor of English History, University of London, Fellow of All Souls College, Oxford: "The English Parliament, Its Historical Function and Development".

Nov. 6. BISHOP ROOTS, Hankan, China: "The Revolution in China".

Dec. 5. Mr. BERNARD LANGDON-DAVIES, of Cambridge University, England: "International Arbitration".

*Philosophy*

Feb. 13, 14. Dr. FREDERICK J. E. WOODBRIDGE, Professor of Philosophy, Columbia University: "Philosophy and its History".

*Photography*

March 20. Mr. A. G. ELDREDGE, formerly with Doubleday, Page & Co.: Illustrated lecture, "Landscape and Garden Photography".

*Psychology*

March 4, 10. Dr. FELIX KRUEGER, Professor of Psychology, University of Halle, and Roosevelt exchange professor at Columbia University: "Introduction to Psychology".

*THE COLLEGE OF ENGINEERING*

*College Assemblies*

Jan. 10-14. Mr. A. T. NORTH, Contracting Engineer: "Estimating".

Jan. 15. Mr. A. N. JOHNSON, State Highway Commissioner of Illinois: "Present Status of Road Work in Illinois".

Feb. 14. Mr. F. N. D. BUCHMAN, Secretary of the Y. M. C. A., Pennsylvania State College: "The Opportunities of Engineers in Shaping the World's Problems".



- Feb. 21. Mr. H. B. McMASTERS, of Youngstown, Ohio: "Fire Tests of Building Partitions".
- Feb. 28. Mr. A. N. REBORI, Professor of Architectural Design, Armour Institute: "The Development of the Skyscraper".
- March 6. Mr. C. C. THOMAS, Professor of Steam Engineering, University of Wisconsin: "Machinery of Modern Steamships".
- March 7. Mr. J. E. CONZELMANN, Engineer, St. Louis, Mo.: "The Unit System of Reinforced Concrete Construction".
- March 14. Mr. L. V. LUDY, Professor of Experimental Engineering, Purdue University: "Automobile Efficiencies".
- April 11. Mr. LANGDON PIERCE, Division Engineer, Sanitary District, Chicago: "Methods of Sewage Disposal".  
Mr. W. B. GRIFFIN, Architect, Chicago: "The Proposed National Capital City of Australia".
- Oct. 15. Dr. SAKURO TANABE, Professor of Civil Engineering, Kyoto Imperial University, Kyoto, Japan: "The Past and Present of Kyoto City and its Engineering Features".
- Nov. 7. Mr. T. L. CONDRON, Consulting Civil Engineer, Chicago: "Architectural Engineering".
- Nov. 20. Mr. J. F. HAYFORD, Professor of Civil Engineering and Director of the College of Engineering, Northwestern University: "Experiences on a Survey in Central America".
- Dec. 5. Mr. G. E. TIBBETTS, Bridge Engineer for the Kansas City Terminal Railway, Kansas City, Mo.: "The Kansas City Terminal".
- Dec. 11. Mr. G. R. SMALL, Superintendent of the label service, National Board of Fire Underwriters, Chicago: "The Work of the Laboratories of the National Board of Fire Underwriters".
- Dec. 11. Mr. E. C. ENGLISH, Contractor, Chicago: "Estimating".  
Mr. W. J. SMITH, Architect, Chicago: "Architectural Design".

#### *Addresses before the Freshman Class*

- Jan. 15. Mr. A. N. JOHNSON, State Highway Engineer: "Road Construction".
- Nov. 5. Mr. A. N. JOHNSON, State Highway Engineer: "Good Roads".

#### *Architecture*

- Jan. 16. Mr. GEORGE BURNAP, Official Landscape Architect of Washington, D. C.: "Landscape Gardening in Washington, D. C."

March 27. Mr. E. C. ENGLISH: "Estimating Carpenter Work" (before the Architectural Club).

April 24. Mr. WILLIAM JONES SMITH: "Architectural Character of Buildings" (before the Architectural Club).

*Mining Engineering*

(Addresses before the Mining Society)

Feb. 27. Mr. L. W. SCOTT: "Gold Dredging in Siberia".

Oct. 31. Mr. GEORGE H. HAWES: "Mining in the Lake Superior Region".

*Physics*

Oct. 23. Dr. W. J. HUMPHREYS, of the U. S. Weather Bureau, Washington, D. C.: "Effect of Volcanic Dust in the Atmosphere on Temperature", "Effect of Pressure on Spectrum Lines".

*THE COLLEGE OF AGRICULTURE*

*Agricultural Extension*

(Addresses before the Corn Growers' and Stockmen's Convention)

Jan. 16. Mr. GEORGE O. SHIELDS, President, League of American Sportsmen: "The Value of Insect Eating Birds to the People"; "Wild Animals and Birds". Illustrated.

Jan. 18. Mr. WILLIAM G. ECKHARDT, Agricultural Adviser for DeKalb County, Illinois: "Problems and Work that should be done by County Agricultural Advisers".

Jan. 20. Mr. C. C. PERVIER, Sheffield, Illinois: "European Farm Conditions". Illustrated.

Jan. 21. Mr. A. N. JOHNSON, State Highway Commissioner, Springfield, Illinois: "Illinois Roads".

Jan. 22. Hon. A. P. GROUT, President Illinois Farmers' Institute: "The Illinois Alfalfa Growers' Association".

Jan. 22. Mr. FRANK STOCKDALE, Representative of the International Harvester Co.: "The Dawn of Plenty". Illustrated.

Jan. 23. Mr. W. D. GIBBS: "Preliminary Work of Draining Illinois Lands".

Mr. GUY L. SHAW: "What Comes after Drainage".

Jan. 24. Mr. ERNEST BURNHAM, of the University of Michigan: "Rural School Education".

Dec. 19. Mr. McNEAL C. JAMES, Professor of Agricultural Education, Normal School, Valley City, N. D.: "Secondary School Agriculture".



*Agronomy*

- March 11. Mr. C. H. OATHOUT, Manager of the Meharry Farms, Tolono, Illinois: "Accomplishments on the Meharry Farms".
- March 25. Mr. J. S. COLLIER, Agricultural Adviser of Kankakee County: "The Work of the County Adviser".
- Nov. 4. Hon. F. I. MANN, of Gilman, Illinois: "Practical Agriculture".
- Dec. 2. Mr. S. W. STRONG, Secretary of the Illinois Grain Dealers' Association: "Improving the Quality of Grain for Illinois Elevators".

*Animal Husbandry*

- Jan. 17. BROTHER LEO, of Notre Dame University: "Producing Carload Lots for the International".
- HON. E. P. HULL, Mechanicsburg, Illinois: "Cattle Feeding: Producing International Winners in Carload Lots" (before the Corn Growers' and Stockmen's Convention).
- April 4. Mr. WAYNE DINSMORE, Secretary of the Percheron Breeders' Association of America: "Horse Market Conditions in the United States and Europe".
- July 15. Dr. CHARLES E. THORNE, Director of the Ohio State Experiment Station: "Live Stock Farming and Soil Fertility" (before the Illinois Cattle Feeders' Association and visitors).

*Horticulture*

- Jan. 15, 16. Mr. GEORGE BURNAP, Official Landscape Architect of Washington, D. C.: "The Home Problem," "The Washington Plan".
- Feb. 5, 6. Mr. JAMES STURGIS PRAY, Assistant Professor of Landscape Architecture, Harvard University: "Gardens Old and New", "Functional City Planning".
- Feb. 15-29. Mr. W. N. RUDD, President of Mt. Greenwood Cemetery Association: Lectures on horticultural subjects.
- Nov. 6. Mr. JENS JENSEN, Landscape Architect, Chicago, Illinois: "Some Phases of Landscape Design".
- Dec. 12. Mr. THOMAS BENDELOW, Golf Course Architect: "Golf Courses".
- Dec. 16. Judge WILLIAM PRENTISS, of Chicago: "Horticulture—a Safety Valve for the Business and Professional Man".

Dec. 17. Mr. W. W. THOMAS, Anna, Illinois: "The Strawberry in Illinois"; Mr. W. S. PERRINE, Centralia, Illinois, and Mr. F. KERN, Bayfield, Wisconsin: "The Producer"; Mrs. CAROLINA A. BLEY, Chairman of the Pure Food Committee, Chicago Woman's Club: "The Consumer"; Mr. JOHN DENNY, Chicago, Illinois: "The Commission Man"; Mr. L. F. TROJA, Industrial Agent, Wells, Fargo Express Co., Chicago: "The Express Company"; Mr. A. G. HAMBROCK, President of the Retail Merchants' Association of Illinois, Chicago: "The Retailer"; Dr. WILLIAM K. JAKES, of Chicago, Illinois: "Various Points of View".

Dec. 18. Mr. A. W. BRAYTON, Mt. Morris, Illinois: "The National White Pine Forest of Illinois as a State Reservation".

### *Household Science*

Jan. 23. Mrs. MINNIE STARR GRAINGER, State Secretary of the Federations of Woman's Clubs, and Miss MARY SNOW, of the Chicago Public Schools: Addresses before the School for Housekeepers.

### *THE COLLEGE OF LAW*

Oct. 6. Mr. R. A. DALY: "Evolution in Law Book Publishing and the Modern Methods of Finding the Law", "The Mechanical and Typographical Devices Found in Digests and their Uses", "Analyzing Statements of Fact and Finding Cases in Points", "Exhausting Authorities, Text Books, Encyclopedias, and Selected Cases", "Search Books and Tablets, and Answering Questions Concerning Law Publications".

### *THE LIBRARY SCHOOL*

Jan. 14, 15. Mr. EDWIN L. SHUMAN, Literary Editor of the *Chicago Record-Herald*: "How to Judge a Book", "The Librarian and Public Taste".

April 8. Mr. ADAM STROHM, Librarian of the Detroit Public Library: "The Organization and Work of the Detroit Public Library".

April 11, 12. Miss ETHEL S. FEGAN, Librarian of Ladies' College, Cheltenham, England: "Library Training in Great Britain", "The Great University and Reference Libraries in England".

April 28. Miss MARY EMOGENE HAZELTINE, Preceptor of the University of Wisconsin Library School: "The Work of the Wisconsin Library Commission" and a "Book Talk".



May 6. Mr. WILLIAM H. BRETT, Dean of the Western Reserve University Library School: "The Larger Purpose of the Library".

Nov. 7. Dr. W. DAWSON JOHNSON, Librarian, Columbia University: "The Mutual Advantage Accruing from Establishing a Vital Connection between a Library School and a University".

Dec. 17-18. Mr. GEORGE B. UTLEY, Secretary of the American Library Association: "The American Library Association and Its Work", "A Library Diagnosis".

### *THE SUMMER SESSION OF 1913*

#### *Lectures*

June 23-29. Professor J. B. STOUGHTON HOLBORN, Oxford, England: "Art in Daily Life".

June 30-July 7. Professor J. B. STOUGHTON HOLBORN, Oxford, England: "The Inspiration of Greece the Greatest Factor in Modern Civilization".

July 3. Dr. LEONARD P. AYRES, Russell Sage Foundation, New York City: "The Sub-normal Child in the Public Schools".

July 8-16. Dr. RUTH MARSHALL, Rockford College: "The Need of Nature Study", "Nature Study Field Trips", "Courses in Nature Study", "Literature of Nature Study", "Round Table Discussion".

July 29. Mr. JOHN ADAMS, Professor of Education, University of London: "The Dullness of the School Master".

July 30-August 5. Dr. F. H. HAYWARD, London, England: "Adolescent and Adult", "Lessons in Appreciation", "Glimpses into English Education", "The Moral Education Controversy", "Fallacies of Heredity Mongers".

July 11. Dr. T. W. GALLOWAY, Professor of Biology, James Millikin University: "Sex Education".

#### *Entertainments*

July 11, 12. THE BEN GREET PLAYERS: "Midsummer Night's Dream", "Love's Labour's Lost", "Twelfth Night".

# ASSOCIATIONS, SOCIETIES, AND CLUBS

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## GENERAL ORGANIZATIONS

### UNIVERSITY OF ILLINOIS UNION

The University of Illinois Union is an association of the men of the University, having for its general object the promotion of college spirit and good fellowship. The Union has purchased a house which is open to all university men. All male students are eligible to active membership in the Union; alumni and members of the faculty may become associate members. The Union elects annually a Student Council, consisting of eight seniors and seven juniors, which takes charge of certain student activities.

### THE WOMAN'S LEAGUE

The Woman's League was organized to further the spirit of unity among the women of the University and to be a medium for the maintenance of high social standards. The administrative power is vested in an Advisory Board and an Executive Committee composed of representatives from the various women's organizations. Every woman in the University is, by virtue of her registration, a member of the League. The League manages a loan fund, supports a room in the Burnham Hospital, and provides the magazines for the Woman's Building.

### HOSPITAL ORGANIZATION

The Hospital Association is an organization of students to provide a fund for hospital care in case of sickness. The members of the Association pay a fee of one dollar each semester, and the fund thus raised is used to pay the hospital expenses of members who may need such care. The fund is under the control of a committee of the Council of Administration. During the past ten years the Association has rendered valuable aid to a considerable number of members. Students are advised to join the Association.



## LITERARY SOCIETIES

The ADELPHIC, IONIAN, and PHILOMATHEAN societies for men, and the ALETHENAI, ATHENIAN, ILLIOLA, and GREGORIAN societies for women, meet weekly, on Fridays, and the JAMESONIAN on Tuesdays, throughout term time.

## THE CHRISTIAN ASSOCIATIONS

The present membership of the Young Men's Christian Association is 1066—believed to be the largest paid membership of any Student Y. M. C. A. in the world. The Association building furnishes free, for the use of all students, lounging room and library, parlors, organization rooms for committee meetings, correspondence tables, check room, etc. The building also contains game rooms, bowling alleys, and dormitories to accommodate ninety men. A cafeteria, whose manager is on the pay roll of the Association, serves 450 to 500 persons daily. Religious meetings for men are held occasionally on Sunday afternoon. Thursday evening meetings are addressed by prominent faculty members on ethical topics. Student-led classes in Bible Study are promoted, the teachers receiving training in normal groups. In 1912-13 there were 750 men enrolled in voluntary Bible Study and 280 enrolled in Mission Study. An employment bureau managed by a special secretary, who maintains office hours every afternoon in the Association building, endeavors to help needy students to find work.

The Y. W. C. A. is spending its first year in its new home, the Hannah McKinley building, recently dedicated. Dormitory space is provided for fifty young women. There are parlors on the first floor for use of the women rooming in the house, a large assembly room, and free use of pianos, organization rooms, and correspondence tables. A bowling alley and modern dining room are in the basement. There are 500 members of the Y. W. C. A. at present, which is twice the number previously enrolled. In 1912-13 there were 360 young women enrolled in voluntary Bible Study and 112 in Mission Study. An employment bureau is maintained at the Y. W. C. A. to assist needy young women in finding employment.

At the opening of the college year the Associations endeavor to help new students to find desirable rooming and boarding places. A copy of the Students' Handbook, giving information about Urbana and Champaign, the University, and the various college organizations and activities will be sent free to prospective students. For this handbook or for further information address the general secretary of either Association.

## THE COSMOPOLITAN CLUB

The Cosmopolitan Club is an organization devoted to the promotion of social and intellectual intercourse among persons of different nationalities at the University. Public meetings are held in University buildings, to afford the University community information about the customs peculiar to the various countries of the world. The clubhouse on Daniel street affords a home to many foreign students and to a limited number of native students.

## MA-WAN-DA

*Ma-Wan-Da* is a senior society formed by the consolidation of the two former senior societies, Shield and Trident and Phenix.

## HONORARY SOCIETIES

The honorary societies or fraternities named below are private intercollegiate organizations of students and graduates, having for their primary purpose the recognition and encouragement of excellence in scholarship in various departments of study. Election is in all cases made by the societies themselves in accordance with their own rules. The University assumes no responsibility for their elections.

## PHI BETA KAPPA

Each year a certain number of the ranking students of the senior class are elected to membership in the Phi Beta Kappa Society. The number is ordinarily limited to one-fifth of the total membership of the graduating class.

*The Phi Beta Kappa Prize*

Gamma of Illinois chapter of Phi Beta Kappa offers annually a prize of \$25.00 to that member of Gamma Chapter who at his graduation from the College of Liberal Arts and Sciences gives evidence of greatest promise as a scholar in the domain of liberal arts. The award is based on the following considerations: (a) Class room records; (b) other literary and scholarly activities in the University; (c) an essay, which may be a senior thesis or a term paper. At the discretion of the committee in charge, the award may be withheld if none of the essays appears worthy of the prize. Essays submitted in competition and all correspondence with reference to this prize should be addressed to the Secretary of the Phi Beta Kappa Society, University of Illinois.

## SIGMA XI

Members of the senior class who give "promise of marked ability" in scientific investigations are eligible to membership in the



Sigma Xi Society, which was founded to encourage research in pure and applied science.

#### OTHER HONORARY SOCIETIES

Alpha Chi Sigma (Chemical); Alpha Gamma Rho (Agricultural); Alpha Zeta (Agricultural); Beta Gamma Sigma (Commercial); Delta Sigma Rho (Oratorical); Eta Kappa Nu (Electrical Engineering); Gamma Alpha (Scientific); Kappa Delta Pi (Educational); Order of the Coif (Law); Phi Alpha Delta (Law); Phi Delta Phi (Law); Phi Lambda Upsilon (Chemical); Scabbard and Blade (Military); Scarab (Architectural); Sigma Delta Chi (Journalistic); Sigma Mu Rho (Medical); Tau Beta Pi (Engineering); Triangle (Civil Engineering).

#### CLUBS AUXILIARY TO COURSES OF STUDY

In addition to the associations and societies of a general character described above, there are in each college a number of societies and clubs devoted to outside work of a literary, scientific, or technical nature auxiliary to the work of various departments of that college. Among these are the following:

In the COLLEGE OF LIBERAL ARTS AND SCIENCES: The Botanical Club, the Ceramic Club, *le Cercle Français*, *el Circulo Español*, the Chemical Club, the University of Illinois Section of the American Chemical Society, the Classical Club, the Commercial Club, *der Deutsche Verein*, the English Journal Club, the Geological Journal Club, the History Club, the Mathematical Club, the Oratorical Association, the Pen and Brush Club, the Philological Club, the Political Science Club, the Romance Journal Club, the Scandinavian Club, the Zoological Club.

In the COLLEGE OF ENGINEERING: The Architects' Club, the Civil Engineers' Club, the Electrical Engineering Society, the Urbana Section of the American Institute of Electrical Engineers, the Mechanical Engineering Society, the Urbana Student Branch of the American Society of Mechanical Engineers, the Mining Engineering Society, the Urbana Student Branch of the American Institute of Mining Engineers, the Physics Club, the Railway Club.

In the COLLEGE OF AGRICULTURE: The Agricultural Club, the Horticultural Club, the Household Science Club, the Landscape Gardeners' Club.

In the COLLEGE OF LAW: The Fuller, John Marshall, Witenagemot, and Van Twiller Law Clubs.

In the SCHOOL OF MUSIC: The University Choral and Orchestral Society, the University Glee and Mandolin Club, the University Military Band.

In the LIBRARY SCHOOL: The Library Club.

### FRATERNITIES, SOCIETIES, AND CLUBS

*National Fraternities.*—Acacia (Masonic); Alpha Delta Phi; Alpha Kappa Psi; Alpha Sigma Phi; Alpha Tau Omega; Beta Theta Pi; Chi Phi; Chi Psi; Delta Kappa Epsilon; Delta Tau Delta; Delta Upsilon; Kappa Sigma; Phi Delta Theta; Phi Gamma Delta; Phi Kappa; Phi Kappa Psi; Phi Kappa Sigma; Phi Sigma Kappa; Psi Upsilon; Sigma Alpha Epsilon; Sigma Chi; Sigma Nu; Sigma Pi; Tau Kappa Epsilon; Theta Delta Chi; Zeta Beta Tau; Zeta Psi.

*Sororities.*—Achoth (Eastern Star); Alpha Chi Omega; Alpha Delta Pi; Alpha Omicron Pi; Alpha Xi Delta; Chi Omega; Delta Gamma; Gamma Phi Beta; Kappa Alpha Theta; Kappa Kappa Gamma; Phi Beta; Pi Beta Phi; Sigma Kappa.

*Local Clubs.*—Chi Beta; Delta Omega; Gamma Alpha; Ilus; Iris; Pi Omicron; Psi Delta; Tau Lambda.

*Interfraternity Organizations.*—Men's Pan Hellenic Council; Girls' Pan Hellenic Association; Helmet; Yo Ma; Phi Delta Psi.

### OTHER ORGANIZATIONS

Other students' societies include the following: Chinese Students' Club; Dixie Club; Easterners' Club; Egyptian Club; H. H. Club; Ivrim; Kansas Club; Komenian Society; Lincoln League; Mask and Bauble (Dramatic); Motorcycle Club; Scribblers' Club; Sewanee Circle; Shomeez (Interfraternity Missouri Club); Treveri.



# UNDERGRADUATE SCHOLARSHIPS

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(For circulars giving more detailed information concerning these scholarships, apply to the Registrar of the University.)

## COUNTY SCHOLARSHIPS

A law passed by the General Assembly of the State of Illinois at the session of 1905 and embodied in the General School Law of 1909 provides that one scholarship may be awarded annually to each county of the State. The holder thereof must be at least sixteen years of age, and a resident of the county to which he is accredited. No student who has attended the University of Illinois is eligible for a scholarship. The holder of a scholarship is relieved of payment of the matriculation fee (\$10.00, payable once, upon entrance) and incidental fees for four years (\$24.00 a year) in any department of the University other than the professional schools. The term "professional schools," as here used, includes the College of Law, the Library School, the College of Medicine, the College of Dentistry, and the School of Pharmacy.

A competitive examination, under the direction of the President of the University and upon such branches of study as the President may select, is held, upon the first Saturday in June of each year, at the county court house in each county by the County Superintendent of Schools. Questions for these examinations are furnished in advance to the County Superintendents.

The successful candidates in the examinations must then meet in full, either by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class, and must register the following September.

In case the scholarship in any county is not claimed by a resident of that county, the President of the University may fill the same by assigning to that county from some other county the student found to possess the next highest qualifications.

A student holding a scholarship who shall make it appear to the satisfaction of the President of the University that he requires leave of absence for the purpose of earning funds to defray his expenses while in attendance, may, in the discretion of the President, be granted such a leave of absence, and may be allowed an extension of his scholarship for not more than two years (making not more than six years in all from the beginning of the scholarship). Such extension will not be granted unless the student has been in attendance at the University for at least one full semester, nor unless the student's average grade during the period of his attendance has been at least 80 per cent, exclusive of grades in Military Science and Physical Training.

#### GENERAL ASSEMBLY SCHOLARSHIPS

The same act by which the county scholarships described above were established also provides that each member of the General Assembly may nominate annually one eligible person from his district for a scholarship in the University, granting the same privileges as the county scholarships.

A member of the General Assembly who wishes to nominate a candidate for a scholarship should file the name and address of his nominee, as early in the spring as practicable and not later than June 1, with the President of the University and also with the County Superintendent of the county in which the nominee resides.

The nominee is then required, under the statute, (1) to pass the scholarship examination—the same that is given to competitors for the county scholarships on the first Saturday in June, under the County Superintendent; (2) to meet in full, either by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class; and (3) to register in the University the following September.

If a nominee fails to make a passing grade (70) in the scholarship examination he may not receive the scholarship. In this case notice will be sent to the member of the General Assembly who made the nomination, who is then entitled to nominate a second candidate. This second candidate is subject to all the requirements stated above; the scholarship examination will be given him at the University on the Wednesday preceding the fall registration days (in 1914, September 16).

A General Assembly scholarship may be extended under the same conditions as a county scholarship.



## SCHOLARSHIPS IN CERAMICS

The University offers annually to each county in the State one scholarship, awarded by the Trustees of the University, upon the nomination of the Illinois Clay Workers' Association, to applicants who intend to pursue either of the courses in ceramics (Ceramics, and Ceramic Engineering). These scholarships are good for four years and relieve the student from the payment of the matriculation fee (\$10.00, payable once, upon entrance) and the incidental fees (\$24.00 a year).

The candidate must be at least sixteen years of age, must be a resident of the county for which he is nominated, and must meet *in full, before entering*, by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class.

## SCHOLARSHIPS IN AGRICULTURE AND HOUSEHOLD SCIENCE

The University offers every year to each county in the State, except Cook and Lake, and to each of the first ten congressional districts, one scholarship for prospective students of Agriculture in the College of Agriculture and one for prospective students of Household Science in the College of Liberal Arts and Sciences or the College of Agriculture.

Appointments to scholarships in agriculture are made by the Trustees of the University upon the recommendation of the Executive Committee of the Illinois Farmers' Institute; and to scholarships in household science upon the recommendation of the County Domestic Science Associations, or, for counties and districts in which there are no domestic science associations, on the recommendation of the Illinois Farmers' Institute. Persons who have already attended the University are not eligible.

Candidates who are able to meet in full the requirements for admission to the freshman class are eligible to appointment at 16 years of age. Candidates who cannot meet these entrance requirements are eligible to appointment as special students (in the College of Agriculture) at 21 years of age.

Acceptable candidates, residents of counties or districts for which appointments have been made, not exceeding five in number from any one county or district, may be assigned to counties or districts for which no recommendations are made. The first nominee from each county or district, if duly qualified, is awarded the scholarship

at the time of registration. Other nominees must pay the regular fees on registration. Assignments to counties and districts for which there are no nominees registered are made on October 15, at which time the nominees so assigned to counties or districts other than their own receive rebates of the full amount of the matriculation and incidental fees paid.

The scholarships are good for two years and relieve the holders from the payment of the matriculation fee (\$10.00, payable once, upon matriculation), and the incidental fees (\$24.00 a year). If, before a scholarship expires, the holder satisfies in full the requirements for admission to the freshman class of the college in which he or she is enrolled the term of the scholarship may be extended to four years from the date of the student's matriculation.

### MILITARY SCHOLARSHIPS

Students who have had three semesters of class instruction in military science and four semesters of drill practise are eligible for appointment as commissioned officers of the University Corps of Cadets. To those attaining this rank, special military scholarships, good for one year, and equal in value to the university incidental fees for the year, are open. The amount of these scholarships is paid to the holders at the close of the academic year. Appointments in the Corps of Cadets are made on the recommendation of the Commandant of Cadets, confirmed by the Council of Administration.

### OTHER SCHOLARSHIPS

For *scholarships in the College of Law*, see page 277.

For *scholarships in the Summer Session*, see page 250.

For *fellowships and graduate scholarships*, see under Graduate School, page 227.



## BENEFICIARY AID

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### EDWARD SNYDER DEPARTMENT OF STUDENTS' AID

In 1899 Edward Snyder, Professor of the German Language and Literature, *Emeritus*, gave the University the sum of \$12,000, to be lent to worthy students to enable them to finish their courses in the University.

This fund is available for junior, senior, and graduate students who need aid to remain and complete their work. The minimum loan made is fifty dollars (\$50); the maximum loan is one hundred and fifty dollars (\$150) to a junior, and two hundred dollars (\$200) to a senior or graduate student. Notes of hand are taken for the amount of the loans, with 5 per cent interest. The maximum time limit is for juniors three years and for seniors and graduates two years from the ensuing thirtieth of June.

Loans are made only to matriculated students who have attained at least the full rank of junior, who have been in residence at the University at least one year, who are at the time students in residence at the University, and who have declared their intention to graduate.

In recommending loans, preference is given to those students who are most advanced in their university work, who have shown themselves most assiduous and successful in their studies, and have shown habitual economy in living. No distinction is made on account of sex or course of study. A loan will not be recommended for any student who is believed to have been financially or morally delinquent in any respect.

Applications for loans must be made in writing and addressed to Dean Thomas Arkle Clark, Chairman of the Loan Fund Committee.

### CLASS OF 1895 LOAN FUND

A fund of \$100.00 was established by the class of 1895, to be lent to needy and deserving students. According to the conditions of the gift, the sum of fifty dollars is to be lent annually, and the

benefit of the fund is open only to students who, at the time of application, are members of the freshman class. No person may receive the benefit of the fund more than four years. The loan bears interest from the time the recipient leaves the University, and is due one-half in five years and one-half in six years after matriculation. The fund is in charge of the Loan Fund Committee of the Council of Administration. Applications should be made in writing and should be addressed to Dean Thomas Arkle Clark, Chairman of the Committee.

#### GRADUATE CLUB LOAN FUND

A fund of \$75 was established by the members of the Graduate Club in 1907-1908, for the benefit of graduate students. Its administration is in the hands of the Loan Fund Committee of the Council of Administration. Applications should be made in writing and should be addressed to Dean Thomas Arkle Clark, Chairman of the Committee.

#### WILLIAM B. M'KINLEY LOAN FUND

In September, 1912, the Hon. William B. McKinley of Champaign, Illinois, turned over to the University notes aggregating something more than \$12,000.00, this amount as it is collected to be used as a loan fund for undergraduate men. In making the donation, Mr. McKinley stipulated that loans should be made to students upon their own personal notes, and that a preference should be shown in making these loans to upperclassmen. The notes draw interest at 5 per cent and become due two years after the student's graduation. Applications for loans should be made in writing and should be addressed to Dean Thomas Arkle Clark, Chairman of the Loan Fund Committee.

#### HENRY STRONG LOAN FUND

Mr. Gordon Strong, of Chicago, trustee of the Henry Strong Educational Fund, has for 1913-14 offered the University \$500.00 to be loaned to self-supporting students of high scholastic attainments. The loan bears interest at 4 per cent and is payable within one year after graduation. The fund has been loaned to two students, each of whom received \$250.00.



# FEES AND EXPENSES

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## GENERAL FEES

*All University fees are payable each semester in advance.*

COLLEGES OF LIBERAL ARTS AND SCIENCES, ENGINEERING, AND  
AGRICULTURE, AND LIBRARY SCHOOL

*Matriculation Fee.* Each student not holding a scholarship, upon satisfying the requirements for admission to the University, pays the matriculation fee of.....\$10.00

*Incidental Fee.* All students, excepting those holding scholarships, pay, each semester, an incidental fee of..... 12.00

*Tuition Fee.* Students conditioned on entrance requirements, and special students, except special students holding scholarships, pay, each semester, a tuition fee of..... 7.50

*Laboratory Fees.* Each student working in laboratories, or in the drafting or engineering classes, is required to pay a fee varying from \$1.00 to \$10.00, to cover materials and apparatus used and breakages or damages. (For a list of Laboratory Fees, see page 150.)

*Listener's Fee.* Persons not connected with the University who attend classes as listeners, or for credit, pay for each course, each semester ..... 7.50

*Late Registration Fee.* A former student who enters after the Registration Days in either semester must pay a late registration fee of..... 1.00

*Change Fee.* For every change of study-list made later than the tenth day of instruction in either semester, there is charged a fee of..... 1.00

*Special Examination Fee.* For any special examination, the fee is..... 5.00

*Diploma Fee.*..... 5.00

## SCHOOL OF MUSIC

*College Courses*

Matriculated students, residents of Illinois, pay, each semester, the incidental fee.....\$12.00

Non-matriculated students registered for the course in *Public School Methods*, as outlined on page 236, pay, each semester:

(1) The incidental fee.....\$12.00

(2) The tuition fee..... 7.50

All other students (including matriculated students not residents of Illinois and all conditioned and special students), pay, each semester:

If they take music only, special music fees, as follows:

For two lessons a week.....\$32.50

For one lesson a week..... 19.50

For harmony, counterpoint, fugue, etc..... 9.00

If they take, in addition to music, subjects in other departments:

(1) The incidental fee.....\$12.00

(2) Unless matriculated, the tuition fee..... 7.50

(3) Special music fees, as follows:

For two lessons a week.....\$25.00

For one lesson a week..... 15.00

(4) For harmony, counterpoint, fugue, etc..... 9.00

*Preparatory Courses*

Students taking music only pay, each semester, special music fees as follows:

For two lessons a week.....\$19.50

For one lesson a week..... 11.00

Students taking, in addition to music, subjects in other departments pay, each semester:

(1) The incidental fee.....\$12.00

(2) Unless matriculated, the tuition fee..... 7.50

(3) Special music fees, as follows:

For two lessons a week.....\$15.00

For one lesson a week..... 8.50

*Additional*

Use of a piano for practise one hour a day, each semester..\$ 3.00

Additional hours at the same rate

Special students, taking music only, may enter classes in

physical training on paying, each semester..... 7.50



## COLLEGE OF LAW

|                                                                                             |          |
|---------------------------------------------------------------------------------------------|----------|
| Matriculation fee, payable upon satisfying the entrance requirements .....                  | \$ 10.00 |
| Tuition fee, each semester.....                                                             | 25.00    |
| Students conditioned on entrance requirements pay, each semester, an additional fee of..... | 7.50     |
| Students not enrolled in the College of Law pay, each semester, for each law course.....    | 5.00     |

## COLLEGE OF MEDICINE

|                                                           |         |
|-----------------------------------------------------------|---------|
| Matriculation fee, each year.....                         | \$ 5.00 |
| General ticket, freshman and sophomore years, each.....   | 120.00  |
| Junior year .....                                         | 140.00  |
| Senior year .....                                         | 155.00  |
| Laboratory deposit, freshman and sophomore years, each... | 20.00   |
| Junior year (there is no deposit in the senior year)..... | 5.00    |

## COLLEGE OF DENTISTRY

|                                                               |         |
|---------------------------------------------------------------|---------|
| Matriculation fee, each year.....                             | \$ 5.00 |
| Tuition, each year (including laboratory and dissection fees) | 150.00  |

## SCHOOL OF PHARMACY

|                                                    |         |
|----------------------------------------------------|---------|
| Matriculation fee, paid but once.....              | \$ 5.00 |
| Tuition fee, shorter course, each year.....        | 75.00   |
| Tuition fee, longer course, each year.....         | 125.00  |
| Laboratory deposit, shorter course, each year..... | 10.00   |
| Laboratory deposit, longer course, each year.....  | 15.00   |
| Diploma fee .....                                  | 5.00    |

## LABORATORY FEES (FOR MATERIALS) 1913-1914

(The fees given below are in each case for one semester only; where a course runs through both semesters, the fee named is to be paid each semester.)

|                      |         |                   |      |
|----------------------|---------|-------------------|------|
| Architecture 6.....  | \$ 1.50 | Botany 11.....    | 1.50 |
| Architecture 10..... | 1.00    | Botany 12.....    | 2.00 |
| Architecture 13..... | 1.00    | Botany 101.....   | 3.00 |
| Architecture 14..... | 1.00    | Botany 102.....   | 3.00 |
| Architecture 15..... | 1.00    | Botany 103.....   | 6.00 |
| Architecture 19..... | 1.50    | Botany 106.....   | 3.00 |
| Architecture 31..... | 1.00    | Botany 107.....   | 3.00 |
| Architecture 43..... | 1.00    | Ceramics 1.....   | 2.00 |
| Architecture 44..... | 1.00    | Ceramics 5.....   | 5.00 |
| Architecture 57..... | 1.00    | Ceramics 6.....   | 5.00 |
| Architecture 68..... | 1.50    | Ceramics 11.....  | 5.00 |
| Botany 1.....        | 3.00    | Ceramics 12.....  | 2.00 |
| Botany 2.....        | 1.50    | Ceramics 13.....  | 4.00 |
| Botany 3.....        | 3.00    | Ceramics 14.....  | 4.00 |
| Botany 4.....        | 1.50    | Ceramics 15.....  | 4.00 |
| Botany 5.....        | 7.50    | Ceramics 16.....  | 4.00 |
| Botany 6.....        | 1.50    | Chemistry 1.....  | 8.00 |
| Botany 7.....        | 3.00    | Chemistry 1a..... | 6.00 |
| Botany 8.....        | 6.00    | Chemistry 1b..... | 6.00 |
| Botany 9.....        | 3.00    | Chemistry 3.....  | 8.00 |

# *Fees and Expenses*

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|                                           |       |                                    |      |
|-------------------------------------------|-------|------------------------------------|------|
| Chemistry 3 ( $\frac{1}{2}$ sem.) .....   | 5.00  | Entomology 11.....                 | 1.50 |
| Chemistry 4.....                          | 8.00  | Entomology 13.....                 | 1.50 |
| Chemistry 5a.....                         | 10.00 | Entomology 14.....                 | 1.50 |
| Chemistry 5b.....                         | 10.00 | Entomology 102.....                | 1.50 |
| Chemistry 5c.....                         | 10.00 | Entomology 103.....                | 1.50 |
| Chemistry 5c (3 hrs.) .....               | 8.00  | Entomology 108.....                | 1.50 |
| Chemistry 8.....                          | 8.00  | Entomology 109.....                | 1.50 |
| Chemistry 9a.....                         | 10.00 | General Engineering Drawing 2....  | 1.00 |
| Chemistry 9b.....                         | 10.00 | Geology 1.....                     | 1.00 |
| Chemistry 9c.....                         | 10.00 | Geology 1a.....                    | 1.00 |
| Chemistry 10a.....                        | 5.00  | Geology 2.....                     | 1.00 |
| Chemistry 10b ( $\frac{1}{2}$ sem.) ..... | 5.00  | Geology 3.....                     | 2.25 |
| Chemistry 11 (per hr.) .....              | 2.00  | Geology 4.....                     | 3.00 |
| Chemistry 13a.....                        | 10.00 | Geology 5.....                     | 2.75 |
| Chemistry 13b.....                        | 10.00 | Geology 5a.....                    | 2.75 |
| Chemistry 15.....                         | 8.00  | Geology 6.....                     | 1.00 |
| Chemistry 16.....                         | 3.00  | Geology 7.....                     | 1.00 |
| Chemistry 21.....                         | 8.00  | Geology 8.....                     | 1.00 |
| Chemistry 22.....                         | 10.00 | Geology 9.....                     | 1.00 |
| Chemistry 27.....                         | 8.00  | Geology 10.....                    | 1.50 |
| Chemistry 33.....                         | 8.00  | Geology 11.....                    | 1.00 |
| Chemistry 35.....                         | 10.00 | Geology 12.....                    | 2.25 |
| Chemistry 61.....                         | 5.00  | Geology 13.....                    | 2.25 |
| Chemistry 65.....                         | 5.00  | Geology 14.....                    | 1.00 |
| Chemistry 66.....                         | 3.00  | Geology 15.....                    | 1.00 |
| Chemistry 68a.....                        | 8.00  | Geology 16.....                    | 1.00 |
| Chemistry 68b.....                        | 8.00  | Geology 17.....                    | 1.00 |
| Chemistry 69.....                         | 3.00  | Geology 18.....                    | 1.00 |
| Chemistry 70.....                         | 3.00  | Geology 23.....                    | 1.00 |
| Chemistry 71.....                         | 3.00  | Household Science 1.....           | 3.00 |
| Chemistry 72.....                         | 3.00  | Household Science 4.....           | 5.00 |
| Chemistry 80.....                         | 3.00  | Household Science 5.....           | 2.00 |
| Chemistry 102c.....                       | 5.00  | Household Science 6.....           | 3.00 |
| Chemistry 103.....                        | 10.00 | Household Science 10.....          | 2.00 |
| Chemistry 103a.....                       | 10.00 | Household Science 14.....          | 5.00 |
| Chemistry 105a (per hr.) .....            | 2.00  | Household Science 17.....          | 2.00 |
| Chemistry 106.....                        | 10.00 | Household Science 18.....          | 5.00 |
| Chemistry 107 (per hr.) .....             | 2.00  | Mechanical Engineering 3.....      | 3.00 |
| Chemistry 108.....                        | 3.00  | Mechanical Engineering 12.....     | 3.00 |
| Chemistry 110.....                        | 10.00 | Mechanical Engineering 13.....     | 3.00 |
| Chemistry 111 (per hr.) .....             | 2.00  | Mechanical Engineering 27.....     | 3.00 |
| Civil Engineering 4.....                  | 1.50  | Mechanical Engineering 32.....     | 1.50 |
| Civil Engineering 4a.....                 | 1.50  | Mining Engineering 4.....          | 1.00 |
| Civil Engineering 51.....                 | 1.50  | Mining Engineering 9.....          | 2.00 |
| Civil Engineering 13.....                 | 1.50  | Mining Engineering 10.....         | 3.00 |
| Civil Engineering 13a.....                | .50   | Municipal and Sanitary Eng. 2..... | 1.00 |
| Civil Engineering 13b.....                | .50   | Municipal and Sanitary Eng. 6a.... | 1.00 |
| Civil Engineering 14.....                 | 1.50  | Physics 2b.....                    | 2.00 |
| Civil Engineering 14a.....                | .50   | Physics 3.....                     | 2.00 |
| Civil Engineering 21.....                 | 1.00  | Physics 4.....                     | 2.00 |
| Civil Engineering 22.....                 | 1.00  | Physics 6b.....                    | 2.00 |
| Dairy Husbandry 11.....                   | 4.00  | Physics 15.....                    | 2.00 |
| Electrical Engineering 16.....            | 3.00  | Physics 16.....                    | 2.00 |
| Electrical Engineering 22.....            | 4.00  | Physics 18.....                    | 2.00 |
| Electrical Engineering 23.....            | 5.00  | Physics 20b.....                   | 2.00 |
| Electrical Engineering 24.....            | 5.00  | Physics 25.....                    | 2.00 |
| Electrical Engineering 27.....            | 5.00  | Physics 30b.....                   | 2.00 |
| Electrical Engineering 28.....            | 3.00  | Physics 31.....                    | 2.00 |
| Electrical Engineering 29.....            | 4.00  | Physiology 1.....                  | 3.50 |
| Entomology 1.....                         | 1.00  | Physiology 2.....                  | 3.50 |
| Entomology 2.....                         | 1.50  | Physiology 3.....                  | 3.50 |
| Entomology 3.....                         | 1.50  | Physiology 4.....                  | 3.50 |
| Entomology 4.....                         | 1.50  | Physiology 5.....                  | 3.50 |
| Entomology 5.....                         | 1.50  | Physiology 103.....                | 3.50 |
| Entomology 6.....                         | 2.00  | Psychology 3.....                  | 2.00 |
| Entomology 7.....                         | 1.50  | Psychology 4.....                  | 2.00 |
| Entomology 8.....                         | 1.50  | Railway Engineering 11.....        | 2.00 |
| Entomology 9.....                         | 1.50  | Railway Engineering 63.....        | 3.00 |
| Entomology 10.....                        | 1.00  |                                    |      |



|                                   |      |                             |      |
|-----------------------------------|------|-----------------------------|------|
| Theoretical and Applied Mech. 5.. | 2.00 | Zoology 7.....              | 1.00 |
| Theoretical and Applied Mech. 9.. | 2.00 | Zoology 9.....              | 2.00 |
| Theoretical and Applied Mech. 10  | 1.00 | Zoology 11.....             | 1.50 |
| Zoology 1.....                    | 2.50 | Zoology 13a (per hr.) ..... | 1.00 |
| Zoology 2.....                    | 3.50 | Zoology 15a (per hr.) ..... | 1.00 |
| Zoology 3.....                    | 3.00 | Zoology 17.....             | 1.00 |
| Zoology 6.....                    | 3.00 | Zoology 18.....             | 1.00 |

### AVERAGE ANNUAL EXPENSES

The following are estimated average annual expenses for undergraduate students attending at Urbana, *exclusive* of books, clothing, railroad fare, laboratory fees, if any, and small miscellaneous needs:

|                                               |                      |
|-----------------------------------------------|----------------------|
| *Semester fees .....                          | \$ 24.00 to \$ 24.00 |
| Room rent for each student (two in room)..... | 72.00 " 80.00        |
| Table board in boarding houses and clubs..... | 144.00 " 180.00      |
| Washing .....                                 | 20.00 " 30.00        |

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|                                              |                      |
|----------------------------------------------|----------------------|
| Total .....                                  | \$260.00 to \$314.00 |
| Board and room in private house, a week..... | \$5.50 to \$6.50     |

In addition to the foregoing, freshmen pay a matriculation fee of \$10.00, and the men are required to buy a cadet uniform, which costs \$16.20. Freshmen engineering students will need to buy a set of drawing instruments at a cost of about \$18.00.

Other necessary expenses will need to be taken into consideration. For all the necessary expenses of the year the average student is likely to need not less than \$375.00 to \$450.00. Most students spend more than this amount.

For information in regard to scholarships which cover the matriculation and incidental fees, see page 142.

### BOARD AND ROOMS

The University does not provide dormitories nor furnish board, but the numerous rooming and boarding houses near the campus are to a certain extent under the supervision of the University. The Young Men's and Young Women's Christian Associations of the University will aid new students in securing rooms and board.

*Prospective women students and their parents are invited to correspond with the Dean of Women in regard to suitable places.*

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\*Students of law and music, special students, and conditioned students must make needed changes in the amount given for "semester fees."

## PART II

# THE COLLEGES AND SCHOOLS





# THE COLLEGE OF LIBERAL ARTS AND SCIENCES

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For a description of the *buildings* used by this College, see page 65, for *museums and collections* belonging to it (art, archaeology, commerce, education, European culture, botany, entomology, geology, and zoology), see pages 75, 76, for a summary of its *courses*, see pages 84, 85; for *clubs and societies* auxiliary to its courses of study, see page 140; for *fees*, see page 148.

## ORGANIZATION

The organization of the College of Liberal Arts and Sciences, in which are merged the former College of Literature and Arts and College of Science, became fully effective on July 1, 1913, following upon an action of the Board of Trustees, taken on July 5, 1912. During the period of transition from the old order of two Colleges, to the new single College, various temporary adjustments will be necessary; procedure according to the regulations of the former Colleges, especially in matters like requirements for admission, elective subjects, honors, and combined courses, must continue for certain groups of students already registered. It is expected that the faculty of the College will have worked out a new schedule in these matters before the end of the first year of the union. In the meantime, the requirements of the former Colleges are printed in separate paragraphs wherever necessary.

## PURPOSE

The purpose of the College of Liberal Arts and Sciences is, first, to secure to its students a liberal education including both the humanities and the sciences; second, to furnish specially arranged courses preparatory to later professional and technical studies by which good students may ordinarily obtain in six years both the degree in arts and a professional degree in law or medicine, or a technical degree in engineering; and, third, to provide certain highly specialized courses in applied science (particularly chemistry), busi-



ness administration, journalism, and household science. The degree of Bachelor of Arts is conferred upon the completion of all these courses, except those in applied science for which the degree of Bachelor of Science is given.

Under the modified elective system a student who desires to prepare for teaching may specialize to a considerable extent in the particular subject which he wishes to teach and may also find time for courses in education and related subjects which are of interest to teachers generally. Such students should, as a rule, continue their preparation in the Graduate School.

Students who desire to devote a considerable part of their undergraduate course to specific preparation for some particular calling other than teaching may select courses in (1) business administration, including general business, secretarial service, banking, insurance, accounting, and railway administration and transportation; or (2) journalism; or (3) applied chemistry; or (4) ceramics; or (5) household administration.

### ADMISSION

See the general statement of the entrance requirements of the University, pages 88ff.

### SPECIAL STUDENTS

For a statement of the regulations of the University in regard to special students, see page 96.

It is the policy of this College to admit as special students only a select group of mature and serious persons who, though unable to meet the formal requirements for entrance, are substantially prepared for work of college grade.

### GENERAL REQUIREMENTS FOR GRADUATION

The following general requirements apply to all candidates for the degree of Bachelor of Arts:

A. *University Requirements.*—Each candidate must meet the general University requirements as to residence and registration. He must also secure credit in approved courses (see pages 157-163 below) amounting to 130 hours. An hour is one class period a week for one semester, each class period presupposing two hours' preparation by the student, or the equivalent in laboratory or drawing room.

B. *Prescribed Studies*.—Subjects specifically prescribed for all students: *Rhetoric 1\** (6 hours); *Physical Training, 1 and 1a for men, 7 and 9 for women; Military Science 1 and 2 for men*. In addition, students who purpose to make a science their major subject, are required to have *Chemistry 1*, and *Physics 2a, 2b (or 1, 3)* unless they have had one-year courses in these subjects in an accredited high school or acceptable equivalent courses elsewhere.

C. I. *Group Requirements for the degree according to the schedule of the former College of Literature and Arts*.—Every candidate must offer a minimum of 8 hours in each of the following groups:

I. English, including literature and rhetoric.

II. Ancient and modern languages other than English, including Greek, Latin, the Germanic languages, and the Romance languages. Only courses which require the use of a foreign language may be counted in this group, and the 8 hours offered must all be in the same language.

III. The social sciences, including history, economics, political science, and sociology.

IV. Mathematics and philosophy, including mathematics, education, philosophy, and psychology. A candidate who elects mathematics must take at least five hours of it. If a student does not elect mathematics, his elections in this group must include work in at least two of the other departments of the group. That is, if he does not take mathematics, he must take either philosophy and psychology, or philosophy and education, or education and psychology. With the exception of mathematics, no subject of this group is open to freshmen.

V. The natural sciences, including astronomy, botany, chemistry, entomology, geology, physiology, physics, and zoology. Zoology 16 may not be counted toward this group requirement.

C. (2) *Group Requirements for the degree according to the schedule of the former College of Science*.—Each candidate must offer 8 hours in each of the following Groups: 1, 2, 3 and 5. In Group 4, 16 hours must be offered, provided that students who have had three years of work in foreign language in an accredited

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\*Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric 1 may be excused from the first semester's work. See page 95.



high school, or an equivalent course elsewhere, will be relieved from the requirement of Group 4, and similarly, those who have had one year or two years of foreign language may be relieved from 4 hours or 8 hours respectively of this requirement. The physics and chemistry of the prescribed list may be applied on the requirements of Groups 1 and 2.

*Group 1.*—Mathematics, physics, astronomy, logic (Philosophy 1), mineralogy (Geology 5).

*Group 2.*—Chemistry, geology, household science, bacteriology (Botany 5).

*Group 3.*—Botany, zoology, physiology, psychology, entomology.

*Group 4.*—Foreign language.

*Group 5.*—English literature, history, political science, economics, philosophy, education.

D. (1) *Major Subjects according to the former College of Literature and Arts.*—Each candidate must select some one subject to be designated as his major, and secure credit in that subject to the amount of 24 hours. The courses selected for the last two years should include some distinctly advanced work. The subjects which may be recognized as majors in this college are subject to additions from time to time; at present they are as follows: Classics<sup>1</sup>; economics; education; English<sup>2</sup> (including English literature and rhetoric); French<sup>3</sup>; German<sup>4</sup>; Greek<sup>1</sup>; history; household science; Latin<sup>1</sup>; mathematics; philosophy; political science; psychology; sociology.

Special requirements and suggestions for students in business courses and in household science are indicated below, on pages 163 and 173 respectively. Students holding scholarships in household science must make that subject their major, and take one of the courses outlined on pages 174 and 175 below.

D (2) *Major Subjects according to the former College of Science.*—A total credit of at least 20 hours must be secured in some one of the divisions of the following major elective list. Not more than 40 hours' work (exclusive of thesis) in any one of these divisions may be applied toward graduation. In arranging the subjects to be counted toward the major requirement the student is advised

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<sup>1</sup>For the definition of the major in this subject, see below page 352.

<sup>2</sup>For the definition of the major in English, see below page 377.

<sup>3</sup>A major in French must include 24 hours in addition to French 1.

<sup>4</sup>A major in German must include 24 hours in addition to German 1 and 3.

to consult with the head of the department in which the major is taken.

Major electives are: Astronomy, botany, chemistry, education, entomology, geology (including mineralogy and physical geography), household science, library science, mathematics, physics, physiology, psychology, and zoology.

E. *Elective Subjects*.—The remainder of the course is made up of electives chosen under defined conditions.

1. Credit is regularly given for courses properly announced in the following subjects: Art and design (the total credit in this department is limited to 20 hours); astronomy, botany, chemistry, the classics, economics (including accountancy and commercial law), education, English, entomology, geology, Germanic languages, history, household science, library science, mathematics, philosophy, physics, physiology, political science, psychology, Romance languages, sociology, zoology.

2. Not more than 40 hours in any one subject may be counted for graduation, except when the student is writing a thesis. In this case he may count, in addition to the 40 hours, the hours of the seminar course in which he does his thesis work. In the department of English a student may take 40 hours in addition to Rhetoric 1.

3. No credit is granted in any subject unless the student pursues it for the full time required in the shortest course offered in that subject. For example, if the student elects a course which yields two hours of credit for one semester, he must stay in the class during the semester in order to get any credit at all. In order to secure any credit in a beginning course in a foreign language, a full year's work must be completed.

4. Seniors graduating under the schedule of the former College of Literature and Arts who register in courses open to freshmen may receive only one-half of the credit regularly assigned to such courses. For the year 1913-1914 the following courses are included in this list: Art and Design 1 and 2; Astronomy 1; Botany 11; Chemistry 1; English 1, 10, 20; Entomology 1; French 1; Geology 3, 10, 14, 23; German 1, 3; Greek 1; History 1, 11; Household Science 2, 7; Latin 1; Library Science 12; Mathematics 2, 4; Rhetoric 1; Spanish 1; Zoology 1, 16.



5. A limited amount of credit toward the A.B. degree is ordinarily given for courses offered in other colleges and schools of this University. Students who continue under the schedule of the former College of Science may select, with the approval of the Dean, approximately one-third of the work to be counted toward a degree, from subjects given in other colleges of the University. Students who continue under the schedule of the former College of Literature and Arts will ordinarily confine their elections of work in other colleges and schools to the following courses:

*Physical Training.*—Not to exceed 5 semester hours.

*Military Science and Tactics.*—Military Science 1 and 2.

*Law.*—Law 1 (Contracts); Law 2 (Torts); Law 3 (Real Property); Law 4 (Pleading); Law 5 (Criminal Law); Law 6 (Personal Property). The total credit is limited to 24 hours. None of these courses may be taken before the senior year. Law 1 may count for six hours only.

*Engineering.*—General Engineering Drawing 1 and 2 (Mechanical Drawing and Descriptive Geometry); Theoretical and Applied Mechanics 7 and 8 (Analytical Mechanics); Mechanical Engineering 7 or 15 (Thermodynamics); Civil Engineering 10 or 21 (Surveying); Architecture 31, 32 (Architectural Drawing); Architecture 13, 14, 15, 16, (History of Architecture); Electrical Engineering 1 and 21, or 2 and 26 (Principles).

*Agriculture.*—Agricultural Extension 2 (Elementary Agriculture for teachers); Agronomy 25 (Seeds), for business students only; Agronomy 9 (Soil Physics); Farm Management 1; Agronomy 22 (Plant Breeding); Animal Husbandry 7 (Principles of Animal Nutrition); Animal Husbandry 30 (Principles of Evolution as Applied to the Improvement of Domesticated Animals and Plants); Horticulture 9 (Forestry); Horticulture 10a (Landscape Gardening); Horticulture 12 (Evolution of Horticultural Plants); Horticulture 19 (General Floriculture), for household science students only. The total credit allowed in these agricultural courses will not ordinarily exceed 14 hours.

*Library Science.*—Library 3 (Selection of Books); 7 (History of Libraries); 9 (Book Making); 12 (General Reference); 13 (Public Documents). The total credit allowed in Library Science will not ordinarily exceed 14 hours. The course in General Reference (Lib.

12) is of special value to students in the courses in Literature and Arts.

*Music.*—Music 1, 2, 3, 4, and 5 (courses in the history and theory of music).

Courses not listed under paragraphs 1 to 5 above may not be counted for the degree of A.B., except by special permission of the Dean of the College.

F. *Bachelors' Theses.*—A bachelor's thesis is not generally required in this College. Students of high standing are, however, encouraged to write theses in connection with their major studies. Credit toward the degree is given for thesis work only as a part of the work in some course for which the student is registered. Students desiring to take a thesis course in geology or mineralogy may add to their credits in those subjects the credits received for chemistry; and students in physiology may add to their credits in that subject those in zoology and bacteriology. Only students graduating with a thesis will, as a rule, be selected for fellowships, scholarships, and other similar university honors. Candidates for honors or the honor degree, are required by the general regulations of the University to write a thesis. See below, page 181.

## ARRANGEMENT OF COURSES

### FIRST YEAR

#### *Subjects Prescribed for Freshmen*

The following subjects must be taken during the freshman year: *Rhetoric* 1,\* three hours each semester; *Military* 2, one hour each semester, and *Military* 1, one hour second semester (for men); *Physical Training* (Physical Training 1 and 1a for men; 7 and 9—Physiology 6—for women). Students who have entered according to the requirements formerly set down for the College of Literature and Arts, must take *foreign language*, 4 hours each semester; students entering as of the former College of Science, should take *Chemistry* 1, unless chemistry has been accepted for admission.

#### *Freshman Electives*

The following subjects are open to freshmen. The total amount taken in any semester is limited to eighteen hours, and should not be less than fifteen. All freshmen in the courses in Business Administration must take 6 hours from Economics, 7, 22, 26, 27.

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\*See footnote, page 157.



English 10<sup>1</sup> (3)<sup>2</sup>; Rhetoric 1 (3).

French 1 (4) or 2 (4); German 1 (4) or 3 (4) or 4 (4) or 5 (4); Greek 1 (4) or 7 (3); Latin 1 (4) or 2 (4); Spanish 1 (4).

Mathematics 2 (3) and 4 (2).

Economics 7 (3) and 26 (3); History 1 (4).

Astronomy 1 (3); Botany 2<sup>3</sup> (5), 4 (5), 11 (5); Chemistry 1<sup>4</sup> (5) or 1a<sup>4</sup> (4); Entomology 1 (2); Geology<sup>1</sup> (5) 3<sup>4</sup> (5), 14 (3), 23<sup>4</sup> (5); Physics 2a<sup>5</sup> and 2b<sup>5</sup> (5); Physiology 4 (5); Zoology 1<sup>4</sup> (5).

Household Science 2 (2) or 7 (2) Library Science 12 (2).

Art and Design 1 (2 or 3).

#### Second Semester:

English 10<sup>1</sup> (3); Rhetoric 1 (3).

French 1 (4) or 2 (4); German 3 (4) or 4 (4) or 5 (4) or 6 (4) or 7 (4); Greek 1 (4), 4 (4), or 6 (3); Latin 1 (4), or 2 (4); Spanish 1 (4).

Mathematics 3 (2), 6 (5).

Economics 22 (3) and 27 (3); History 1 (4) or 11 (3).

Astronomy 4 (5); Botany 1 (5), 2<sup>3</sup> (5); 16b (5); Chemistry 1<sup>4</sup> (5) or 1a<sup>4</sup> (4) or 2 and 3 (5); Entomology 1 (2); Geology 1a (5), 3<sup>4</sup> (5), 8 (3), 10 (3), 12 (5); Physics 2a<sup>5</sup> and 2b<sup>5</sup> (5); Zoology 2 (5), 1<sup>4</sup> (5), or 16 (2).

Household Science 1 (3).

Art and Design 1 (2).

#### SECOND YEAR

Male students must continue Military 2 throughout the year. Students who have failed to secure credit for any of the prescribed subjects of the freshman year must make up such deficiencies at this time.

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<sup>1</sup>English 10 is open only to freshmen who have presented the minimum amount of English required for admission. See the description of this course in Part III.

<sup>2</sup>The figure immediately following the subject is the number of the course (see "General Description of Courses," page 337ff.); the figure in parenthesis indicates the number of credit hours to be secured in the course each semester.

<sup>3</sup>Either semester may be taken separately, or both together; entrance botany required.

<sup>4</sup>May be taken in either semester, but not in both.

<sup>5</sup>Prerequisite: Mathematics 4 (Trigonometry) which may be taken at the same time.

## ELECTION

Aside from the subjects prescribed for the first two years, each student selects, with the advice of the Dean or other college advisers, such courses as will enable him to meet the requirements for graduation as stated above.

## COURSES IN BUSINESS ADMINISTRATION

Courses in economics, accountancy, banking, commerce, railway administration, and industry are offered in combination with courses in language, law, and science, with the aim of providing a university training for business life. The combined courses are designed to give the student a knowledge of the general principles that underlie all lines of business, with special training in the work of some particular calling.

## ARRANGEMENT OF COURSES

The subjects of study are so arranged as to furnish training for (1) general business, (2) commercial and civic secretaries, (3) banking, (4) insurance, (5) accountancy, (6) railway traffic and accounting, (7) railway transportation, (8) commercial teachers.

The work of the class-room is supplemented by lectures by practical specialists, and by visits of inspection to industrial and mercantile establishments.

The outlines of the courses in General Business, Secretarial Work, Banking, Insurance, Accountancy, Railway Administration, and Commercial Teaching are given below.

## GENERAL BUSINESS COURSE

The general business course is intended for students who wish a general knowledge of modern business organization and methods and their relation to the public welfare, without specializing in the details of any particular business.

Every student must take 15 to 18 hours of work each semester. Students desiring mathematics, or taking courses requiring it, should elect it the first year, omitting Economic Resources (Economics 26), or Economic History of the United States (Economics 22), and science, which may then be elected the second year.



## Course in General Business

## FIRST YEAR

## FIRST SEMESTER

*Prescribed Subjects*

Foreign language  
 Rhetoric (Rhet. 1)  
 Military (Mil. 2)  
 Physical Training (P. T. 1, 1a)  
 Economic Resources (Econ. 26) or  
 English Econ. Hist. (Econ. 7)  
 Mathematics (Math. 2, 4) or  
 Science

## SECOND SEMESTER

*Prescribed Subjects*

Foreign language  
 Rhetoric (Rhet. 1)  
 Military (Mil. 1, 2)  
 Physical Training (P. T. 1)  
 Modern Industries (Econ. 27) or  
 Econ. Hist. of U. S. (Econ. 22)  
 Mathematics (Math. 6) or  
 Science

## SECOND YEAR

*Prescribed Subjects*

Principles of Econ. (Econ. 1)  
 Amer. Nat'l Gov't (Pol. Sci. 1)  
 Military (Mil. 2)  
 History of U. S. (Hist. 3) or  
 European History (Hist. 1)

*Suggested Electives*

Foreign language continued  
 Mathematics  
 Science

*Prescribed Subjects*

Money and Banking (Econ. 3)  
 Business Organization (Econ. 6)  
 Business Writing (Rhet. 10)  
 Military (Mil. 2)  
 State and Local Gov't (Pol. Sci. 3)  
 History of U. S. (Hist. 3) or  
 European History (Hist. 1)

*Suggested Electives*

Foreign language continued  
 Mathematics  
 Science

## THIRD YEAR

*Prescribed Subjects*

Elementary and Intermediate Accounting (Acc'y 1)  
 Corporation Managem't (Econ. 10)  
 Domestic Com. (Econ. 28) or  
 Foreign Com. (Econ. 29)

*Suggested Electives*

History  
 Public Finance (Econ. 5)  
 Foreign language continued  
 Advanced Accounting and Auditing (Acc'y 2)  
 Railway Transportation (Econ. 41)  
 State Administration (Pol. Sci. 13)  
 Psychology (Psych. 1)  
 Municipal Gov't (Pol. Sci. 4)  
 Sales Correspondence (Rhet. 21)

*Prescribed Subjects*

Elementary and Intermediate Accounting (Acc'y 1)  
 Organization of Foreign Com. (Econ. 31) or  
 Tariff and Customs Regulations (Econ. 30)

*Suggested Electives*

History  
 Indust. Consolid. (Econ. 11)  
 Foreign language continued  
 Advanced Accounting and Auditing (Acc'y 2)  
 Railway Rates (Econ. 42)  
 Psychology (Psych. 2)  
 Logic (Phil. 1b)  
 Summarizing and Abstracting (Rhet. 22)

## FOURTH YEAR

*Prescribed Subjects*

Seminar (Econ. 18)  
 Conference on Written Work (Rhet. 25)  
 Labor Problems (Econ. 12)  
 Commercial Law (Econ. 25)

*Suggested Electives*

Political Ethics (Phil. 9)  
 Constitutional Law (Pol. Sci. 5)  
 (See also third year electives)

*Prescribed Subjects*

Seminar (Econ. 18)  
 Conference on Written Work (Rhet. 25)  
 Commercial Law (Econ. 25)  
 Economic Development of Europe (Econ. 13)

*Suggested Electives*

Economic Reform (Econ. 21)  
 Finan. Hist. of U. S. (Econ. 4b)  
 (See also third year electives)

## COURSE FOR COMMERCIAL AND CIVIC SECRETARIES

This course is intended for students who expect to take service with chambers of commerce, commercial clubs, and civic organizations. The work of the first and second years is the same as in the general business course.

## Course for Commercial and Civic Secretaries

### THIRD YEAR

#### FIRST SEMESTER

##### *Prescribed Subjects*

Elementary and Intermediate Accounting (Acc'y 1)  
Domestic Commerce (Econ. 28) or  
Foreign Commerce (Econ. 29)  
Municipal Gov't (Pol. Sci. 4)  
Corporation Managem't (Econ. 10)

##### *Suggested Electives*

Sales Correspondence (Rhet. 21)  
Public Finance (Econ. 5)  
Prin. of Sociol. (Sociol. 1)  
State Administration (Pol. Sci. 13)  
Political Ethics (Phil. 9)  
Property Insurance (Econ. 34)

#### SECOND SEMESTER

##### *Prescribed Subjects*

Elementary and Intermediate Accounting (Acc'y 1)  
Organization of Foreign Commerce (Econ. 31) or  
Tariff and Customs Regulations (Econ. 30)  
Charities (Sociol. 8)

##### *Suggested Electives*

Summarizing and Abstracting (Rhet. 22)  
Industr. Consolidations (Econ. 11)  
Nat. Administration (Pol. Sci. 12)  
Logic (Phil. 1b)  
Gov't of Illinois (Pol. Sci. 16)

### FOURTH YEAR

##### *Prescribed Subjects*

Commercial Law (Econ. 25)  
Railway Transportation (Econ. 41)  
Foreign Commerce (Econ. 29) or  
Domestic Commerce (Econ. 28)  
Conference on Written Work (Rhet. 25)

##### *Suggested Electives*

Seminar (Econ. 18)  
Constitutional Law of U. S. (Pol. Sci. 5)  
Labor Problems (Econ. 12)  
Population (Sociol. 10)

##### *Prescribed Subjects*

Commercial Law (Econ. 25)  
Railway Rates (Econ. 42)  
Tariff and Customs Regulations (Econ. 30) or  
Organization of Foreign Commerce (Econ. 31)  
Conference on Written Work (Rhet. 25)

##### *Suggested Electives*

Seminar (Econ. 18)  
Social and Industrial Problems (Pol. Sci. 11)  
Economic Reform (Econ. 21)  
Criminology (Sociol. 9)

## COURSE IN BANKING

The work of the first and second years in banking is the same as in the course in general business, but students must take advanced algebra (Math. 2), which is a prerequisite for the mathematics of investment (Math. 23a).

### Course in Banking

#### THIRD YEAR

##### FIRST SEMESTER

##### *Prescribed Subjects*

Elementary and Intermediate Accounting (Acc'y 1)  
Corporation Managem't (Econ. 10)  
Public Finance (Econ. 5)

##### *Suggested Electives*

Domestic Com. (Econ. 28)  
Logic (Phil. 1a)  
History

##### SECOND SEMESTER

##### *Prescribed Subjects*

Elementary and Intermediate Accounting (Acc'y 1)  
Math. of Investment (Math. 23)  
Economic Development of Europe (Econ. 13)

##### *Suggested Electives*

Tariff and Customs Regulations (Econ. 30)  
Indust. Consolid. (Econ. 11)  
History



## FOURTH YEAR

*Prescribed Subjects*

Practical Banking (Econ. 9)  
 Foreign Com. (Econ. 29)  
 Commercial Law (Econ. 25)  
 Seminar (Econ. 18)  
 Conference on Written Work  
 (Rhet. 25)

*Suggested Electives*

Labor Problems (Econ. 12)  
 Political Ethics (Phil. 9)  
 Advanced Accounting and Audit-  
 ing (Acc'y 2)

*Prescribed Subjects*

The Money Market (Econ. 8)  
 Finan. Hist. of U. S. (Econ. 4b)  
 Commercial Law (Econ. 25)  
 Seminar (Econ. 18)  
 Conference on Written Work  
 (Rhet. 25)

*Suggested Electives*

Organization of Foreign Commerce  
 (Econ. 31)  
 Advanced Accounting and Audit-  
 ing (Acc'y 2)

## COURSE IN INSURANCE

The work of the first and second years in insurance is the same as in the course in railway traffic and accounting, except that Economics 7 (Econ. Hist. of England) may take the place of Economic Resources (Econ. 26), and that any other science may be taken instead of physics. (See page 169.)

## Course in Insurance

## THIRD YEAR

## FIRST SEMESTER

*Prescribed Subjects*

Elementary and Intermediate Ac-  
 counting (Acc'y 1)  
 Corporation Managem't (Econ. 10)  
 Amer. Nat'l Gov't (Pol. Sci. 1)  
 Econ. of Insurance (Econ. 33)

*Suggested Electives*

Foreign language continued  
 History of U. S. (Hist. 3)  
 European History (Hist. 3)  
 Public Finance (Econ. 5)  
 Sales Correspondence (Rhet. 21)

## SECOND SEMESTER

*Prescribed Subjects*

Elementary and Intermediate Ac-  
 counting (Acc'y 1)  
 Mathematics of Investment (Math.  
 23)  
 State and Local Gov't (Pol. Sci. 3)

*Suggested Electives*

Foreign language continued  
 History of U. S. (Hist. 3)  
 European History (Hist. 1)  
 Summarizing and Abstracting  
 (Rhet. 22)

## FOURTH YEAR

*Prescribed Subjects*

Property Insurance (Econ. 34)  
 Commercial Law (Econ. 25)  
 Sem. in Insur. (Econ. 18)  
 Conference on Written Work  
 (Rhet. 25)

Actuarial Theory (Math. 31)  
 State Administration (Pol. Sci. 13)

*Suggested Electives*

Political Ethics (Phil. 9)  
 Labor Problems (Econ. 12)  
 Practical Banking (Econ. 9)

*Prescribed Subjects*

Commercial Law (Econ. 25)  
 Sem. in Insur. (Econ. 18)  
 Conference on Written Work  
 (Rhet. 25)

*Suggested Electives*

Finan. Hist. of U. S. (Econ. 4b)  
 Econ. Development of Europe  
 (Econ. 13)  
 Indus. Consolid. (Econ. 11)  
 Money Market (Econ. 8)

## COURSES IN ACCOUNTANCY

The development of the commercial, industrial, and financial interests of the country has given rise to a demand for three classes of workers in accountancy, (1) the teacher, (2) the business executive, (3) the public accountant.

In order to give students adequate preparation for these three fields, the University offers several courses of study:

1. A four years' course in business administration with a maximum of work in accountancy, economics, history, political science, statistics, language, and other subjects.

2. Work in accountancy open to election by students in business administration as part of the general training necessary to a successful business executive.

3. A two years' special course in preparation for the examinations required by law for securing a certificate as a Certified Public Accountant.

According to this law, passed in 1903, establishing accountancy upon a professional basis, candidates are required to pass examinations in commercial law as affecting accountancy, the theory of accounts, practical accounting, and auditing.

### Four-Year Course in Accountancy

#### FIRST YEAR

##### FIRST SEMESTER

##### *Prescribed Subjects*

Foreign language  
Rhetoric (Rhet. 1)  
Military (Mil. 2)  
Physical Training (P. T. 1, 1a)  
Algebra and Trig. (Math. 2, 4)  
English Econ. Hist. (Econ. 7) or  
Economic Resources (Econ. 26)

##### SECOND SEMESTER

##### *Prescribed Subjects*

Foreign language  
Rhetoric (Rhet. 1)  
Military (Mil. 1, 2)  
Physical Training (P. T. 1)  
Analytical Geom. (Math. 6)  
Modern Industries (Econ. 27) or  
Econ. Hist. of U. S. (Econ. 22)

#### SECOND YEAR

##### *Prescribed Subjects*

Principles of Econ. (Econ. 1)  
Elementary and Intermediate Ac-  
counting (Acc'y 1)  
Military (Mil. 2)  
Science

##### *Suggested Electives*

Foreign language continued  
Calculus (Math. 8a)  
European History (Hist. 1)  
Hist. of U. S. (Hist. 3)  
Amer. Nat'l Gov't (Pol. Sci. 1)

##### *Prescribed Subjects*

Money and Banking (Econ. 3)  
Business Organization (Econ. 6)  
Business Writing (Rhet. 10)  
Elementary and Intermediate Ac-  
counting (Acc'y 1)  
Military (Mil. 2)  
Science

##### *Suggested Electives*

Foreign language continued  
European History (Hist. 1)  
Hist. of U. S. (Hist. 3)  
State and Local Gov't (Pol. Sci. 3)

#### THIRD YEAR

##### *Prescribed Subjects*

Advanced Accounting and Audit-  
ing (Acc'y 2)  
Corporation Managem't (Econ. 10)  
Public Finance (Econ. 5)  
Municipal Gov't (Pol. Sci. 4)

##### *Suggested Electives*

Sales Correspondence (Rhet. 21)  
Foreign language  
Domestic Commerce (Econ. 28)  
Logic (Phil. 1a)  
Railway Transportation (Econ. 41)

##### *Prescribed Subjects*

Advanced Accounting and Audit-  
ing (Acc'y 2)  
Indust. Consolid. (Econ. 11)  
Mathematics of Investment  
(Math. 23)

##### *Suggested Electives*

Summarizing and Abstracting  
(Rhet. 22)  
Foreign language  
Tariff and Customs Regulations  
(Econ. 30)  
Railway Rates (Econ. 42)



## FOURTH YEAR

| <i>Prescribed Subjects</i>                 |  | <i>Prescribed Subjects</i>                 |
|--------------------------------------------|--|--------------------------------------------|
| Accounting Problems and Auditing (Acc'y 3) |  | Accounting Problems and Auditing (Acc'y 3) |
| Commercial Law (Econ. 25)                  |  | Commercial Law (Econ. 25)                  |
| Seminar (Econ. 18)                         |  | Seminar (Econ. 18)                         |
| Conference on Written Work (Rhet. 25)      |  | Conference on Written Work (Rhet. 25)      |
| Political Ethics (Phil. 9)                 |  |                                            |
| <i>Suggested Electives</i>                 |  | <i>Suggested Electives</i>                 |
| Practical Banking (Econ. 9)                |  | Money Market (Econ. 8)                     |
| Labor Problems (Econ. 12)                  |  | Finan. Hist. of U. S. (Econ. 4b)           |

## TWO-YEAR COURSE IN ACCOUNTANCY

This course is open only to students in accountancy who are preparing for the C. P. A. examinations, who are at least 20 years of age and able to matriculate in the University, and who can furnish satisfactory evidence of at least one year's experience in the office of a practising public accountant. The course must be taken as outlined. No variation from it is allowed.

## Two-Year Course in Accountancy

## FIRST YEAR

| FIRST SEMESTER                                   |     | SECOND SEMESTER                                  |
|--------------------------------------------------|-----|--------------------------------------------------|
| <i>Prescribed Subjects</i>                       |     | <i>Prescribed Subjects</i>                       |
| Elementary and Intermediate Accounting (Acc'y 1) | Ac- | Elementary and Intermediate Accounting (Acc'y 1) |
| Rhetoric (Rhet. 1)                               |     | Business Organization (Econ. 6)                  |
| Principles of Econ. (Econ. 1)                    |     | Rhetoric (Rhet. 1)                               |
| Algebra (Math. 2)                                |     | Money and Banking (Econ. 3)                      |
| Military (Mil. 2)                                |     | Mathematics of Investment (Math. 23)             |
| Physical Training (P. T. 1, 1a)                  |     | Military (Mil. 1, 2)                             |
|                                                  |     | Physical Training (P. T. 1)                      |

## SECOND YEAR

| <i>Prescribed Subjects</i>                 |        | <i>Prescribed Subjects</i>                 |
|--------------------------------------------|--------|--------------------------------------------|
| Advanced Accounting and Auditing (Acc'y 2) | Audit- | Advanced Accounting and Auditing (Acc'y 3) |
| Accounting Problems and Auditing (Acc'y 3) |        | Accounting Problems and Auditing (Acc'y 3) |
| Corporation Managem't (Econ. 10)           |        | Business Writing (Rhet. 10)                |
| Commercial Law (Econ. 25)                  |        | Commercial Law (Econ. 25)                  |
| Practical Banking (Econ. 9)                |        | Industrial Consolidations (Econ. 11)       |
| Economics of Insurance (Econ. 33)          |        | State and Local Gov't (Pol. Sci. 3)        |
| Property Insurance (Econ. 34)              |        | Military (Mil. 2)                          |
| Military (Mil. 2)                          |        |                                            |

## COURSES IN RAILWAY ADMINISTRATION

There are two courses offered under the head of railway administration, one emphasizing those subjects which are of most value to the student interested in the accounting and traffic aspects of railway work, the other laying stress upon the transportation service, properly so called, and intended to prepare men directly for the transportation departments of railways.

# Course in Railway Traffic and Accounting

## FIRST YEAR

### FIRST SEMESTER

#### *Prescribed Subjects*

Foreign language  
Rhetoric (Rhet. 1)  
Military (Mil. 2)  
Physical Training (P. T. 1, 1a)  
Algebra and Trig. (Math. 2, 4)  
Economic Resources (Econ. 26) or  
Eng. Econ. Hist. (Econ. 7)

### SECOND SEMESTER

#### *Prescribed Subjects*

Foreign language  
Rhetoric (Rhet. 1)  
Military (Mil. 1, 2)  
Physical Training (P. T. 1)  
Analytical Geometry (Math. 6)  
Econ. Hist. of U. S. (Econ. 22) or  
Modern Industries (Econ. 27)

## SECOND YEAR

### *Prescribed Subjects*

Principles of Econ. (Econ. 1)  
Elementary and Intermediate Ac-  
counting (Acc'y 1)  
Amer. Nat'l Gov't (Pol. Sci. 1)  
Physics (Phys. 1 and 3)  
Military (Mil. 2)

### *Prescribed Subjects*

Money and Banking (Econ. 3)  
Business Organization (Econ. 6)  
Elementary and Intermediate Ac-  
counting (Acc'y 1)  
Business Writing (Rhet. 10)  
Physics (Phys. 1 and 3)  
Military (Mil. 2)

## THIRD YEAR

### *Prescribed Subjects*

Adv. Accounting and Audit. (Acc'y 2)  
Corporation Managem't (Econ. 10)  
Railway Transportation (Econ. 41)  
Railway Operation (Econ. 45) or  
Traffic Administration (Econ. 43)

### *Prescribed Subjects*

Adv. Accounting and Audit. (Acc'y 2)  
Indust. Consolid. (Econ. 11)  
Railway Rates (Econ. 42)  
Mathematics of Investment (Math. 23)  
Railway Operation (Econ. 45) or  
Traffic Administration (Econ. 43)

## FOURTH YEAR

### *Prescribed Subjects*

Accounting Problems and Audit-  
ing (Acc'y 3)  
Traffic Admin. (Econ. 43) or  
Railway Operation (Econ. 45)  
Sem. in R'y Admin. (Econ. 18)  
Conference on Written Work  
(Rhet. 25)  
Commercial Law (Econ. 25)

### *Prescribed Subjects*

Accounting Problems and Audit-  
ing (Acc'y 3)  
Traffic Admin. (Econ. 43) or  
Railway Operation (Econ. 45)  
Sem. in R'y Admin. (Econ. 18)  
Conference on Written Work  
(Rhet. 25)  
Commercial Law (Econ. 25)

## COURSE IN RAILWAY TRANSPORTATION

In choosing additional courses to make up the required 130 hours of credit, six hours of such electives must be taken in history, political science, more advanced language, or philosophy.

## Course in Railway Transportation

### FIRST YEAR

#### FIRST SEMESTER

#### *Prescribed Subjects*

Foreign language  
Rhetoric (Rhet. 1)  
Military (Mil. 2)  
Physical Training (P. T. 1, 1a)  
Gen. Engin. Drawing (G. E. D. 1)  
Algebra and Trig. (Math. 2, 4)

#### SECOND SEMESTER

#### *Prescribed Subjects*

Foreign language  
Rhetoric (Rhet. 1)  
Military (Mil. 1, 2)  
Physical Training (P. T. 1)  
\*Descriptive Geom. (G. E. D. 2)  
Anal. Geom. (Math. 6)

\*This subject is to be taken for three hours' credit only.



## SECOND YEAR

*Prescribed Subjects*

Principles of Econ. (Econ. 1)  
 Calculus (Math. 7)  
 Physics (Phys. 1, 3)  
 Military (Mil. 2)

*Prescribed Subjects*

Money and Banking (Econ. 3)  
 Business Organization (Econ. 6)  
 Physics (Phys. 1, 3)  
 Military (Mil. 2)  
 Anal. Mech. (T. and A. M. 7)

## THIRD YEAR

*Prescribed Subjects*

Railway Transportation (Econ. 41)  
 Traffic Admin. (Econ. 43) or  
 Railway Operation (Econ. 45)  
 Anal. Mech. and Resist. of Materials  
 (T. and A. M. 8, 9)

*Prescribed Subjects*

Business Writing (Rhet. 10)  
 Railway Rates (Econ. 42)  
 Traffic Administration (Econ. 43) or  
 Railway Operation (Econ. 45)  
 Engines and Boilers (M. E. 11)  
 Electrical Engin. (E. E. 16)  
 Surveying (C. E. 10)

## FOURTH YEAR

*Prescribed Subjects*

Railway Operation (Econ. 45) or  
 Traffic Admin. (Econ. 43)  
 Sem. in R'y Admin. (Econ. 18)  
 Conference on Written Work  
 (Rhet. 25)  
 Elementary and Intermediate Ac-  
 counting (Acc'y 1)  
 Labor Problems (Econ. 12)  
 Locomotives (R'y M. E. 1)  
 Engin. Materials (T. and A. M. 6)

*Prescribed Subjects*

Railway Operation (Econ. 45) or  
 Traffic Admin. (Econ. 43)  
 Mech. Engin. Lab. (M. E. 13)  
 Sem. in R'y Admin. (Econ. 18)  
 Conference on Written Work (Rhet.  
 25)  
 Elementary and Intermediate Ac-  
 counting (Acc'y 1)  
 R'y Tests (R'y M. E. 11)  
 Mech. Engin. Lab. (M. E. 13)

## COURSE FOR COMMERCIAL TEACHERS

This course is intended for students who are planning to teach commercial subjects in secondary schools.

## Course for Commercial Teachers

## FIRST YEAR

## FIRST SEMESTER

*Prescribed Subjects*

Foreign language  
 Rhetoric (Rhet. 1)  
 Military (Mil. 2)  
 Physical Training (P. T. 1, 1a)  
 English Economic History (Econ. 7).  
 or  
 Economic Resources (Econ. 26)  
 Mathematics (Math. 2, 4) or  
 Science

## SECOND SEMESTER

*Prescribed Subjects*

Foreign language  
 Rhetoric (Rhet. 1)  
 Military (Mil. 1, 2)  
 Physical Training (P. T. 1)  
 Econ. Hist. of U. S. (Econ. 22) or  
 Modern Industries (Econ. 27)  
 Mathematics (Math. 6) or  
 Science

## SECOND YEAR

*Prescribed Subjects*

Principles of Econ. (Econ. 1)  
 Amer. Nat'l Gov't (Pol. Sci. 1)  
 Psychology (Psychol. 1)  
 Military (Mil. 2)  
 History of U. S. (Hist. 3) or  
 European History (Hist. 1)

*Suggested Electives*

Foreign language continued  
 Mathematics  
 Science  
 English literature

*Prescribed Subjects*

Money and Banking (Econ. 3)  
 Business Organization (Econ. 6)  
 Business Writing (Rhet. 10)  
 Psychology (Psychol. 2)  
 Military (Mil. 2)  
 History of U. S. (Hist. 3) or  
 European History (Hist. 1)

*Suggested Electives*

Foreign language continued  
 Mathematics  
 Science  
 English literature

THIRD YEAR

*Prescribed Subjects*

Elementary and Intermediate Accounting (Acc'y 1)  
Corporation Managem't (Econ. 10)  
Prin. of Education (Educ. 1)  
Domestic Commerce (Econ. 28) or  
Foreign Commerce (Econ. 29)

*Suggested Electives*

History  
Foreign language continued  
Logic (Phil. 1a)  
Public Finance (Econ. 5)  
Municipal Gov't (Pol. Sci. 4)  
Railway Transportation (Econ. 41)  
Sales Correspondence (Rhet. 21)

*Prescribed Subjects*

Elementary and Intermediate Accounting (Acc'y 1)  
Hist. of Education (Educ. 2)  
Organization of Foreign Commerce (Econ. 31) or  
Tariff and Customs Regulations (Econ. 30)

*Suggested Electives*

History  
Foreign language continued  
Intro. to Philosophy (Phil. 2)  
Prin. of Second. Educ. (Educ. 6)  
Indus. Consolidations (Econ. 11)  
Railway Rates (Econ. 42)  
Summarizing and Abstracting (Rhet. 22)

FOURTH YEAR

*Prescribed Subjects*

Seminar (Econ. 18)  
Conference on Written Work (Rhet. 25)  
Labor Problems (Econ. 12)  
Commercial Law (Econ. 25)  
Observation and Technique of Teaching (Educ. 10)

*Suggested Electives*

Advanced Accounting and Auditing (Acc'y 2)  
Political Ethics (Phil. 9)  
Constitutional Law of U. S. (Pol. Sci. 5)  
Practical Banking (Econ. 9)  
(See also third year electives)

*Prescribed Subjects*

Seminar (Econ. 18)  
Conference on Written Work (Rhet. 25)  
Econ. Devel. of Europe (Econ. 13)  
Commercial Law (Econ. 25)  
Social Education (Educ. 16) or  
School Hygiene (Educ. 15)

*Suggested Electives*

Advanced Accounting and Auditing (Acc'y 2)  
Social Reform (Econ. 21)  
Financial Hist. of U. S. (Econ. 4a or 4b)  
The Money Market (Econ. 8)  
(See also third year electives)

COURSES IN JOURNALISM

Students who are preparing to enter the advertising or managerial sides of journalistic work should elect economics as a major and enroll in one of the business courses. The work they will take will then be selected under the advice of the proper instructors, according to the needs of the individual student and within the requirements for the College for graduation.

Students who are preparing for journalistic work on the reportorial, literary, or editorial sides should take their major work in English. They will make up their study schedules from the following suggested course. With the consent of the adviser, other courses may, for purposes of specialization, be substituted for suggested courses. A program which satisfies the group and major requirements may, for instance, be so modified in the third and fourth years as to lay emphasis on any one of the social sciences.



## Suggested Course in Journalism

(Major in English)

## FIRST YEAR

| <i>Prescribed Subjects</i>                     |        | <i>Prescribed Subjects</i> |   |
|------------------------------------------------|--------|----------------------------|---|
| Rhetoric 1.....                                | 3      | Rhetoric 1.....            | 3 |
| Physical training .....                        | 1      | Physical training .....    | 1 |
| Military .....                                 | 1      | Military .....             | 2 |
| <i>Suggested Electives</i>                     |        | <i>Suggested Electives</i> |   |
| Continental European History<br>(Hist. 1)..... | 4      | History 1.....             | 4 |
| Foreign language .....                         | 4      | Foreign language.....      | 4 |
| English 10 or science.....                     | 3 or 5 | English 10 or science..... | 3 |
| General Reference (Library 12)....             | 2      |                            |   |

## SECOND YEAR

| <i>Prescribed Subjects</i>                                                     |             | <i>Prescribed Subjects</i>                                                                        |   |
|--------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------|---|
| Military .....                                                                 | 1           | Military .....                                                                                    | 1 |
| <i>Suggested Electives</i>                                                     |             | <i>Suggested Electives</i>                                                                        |   |
| News Writing (Rhetoric 12).....                                                | 2           | News Writing (Rhetoric 12).....                                                                   | 2 |
| English 1 or science.....                                                      | 3 or 4 or 5 | Foreign language continued.....                                                                   | 4 |
| History of U. S. (Hist. 3).....                                                | 3           | History of U. S. (Hist. 3).....                                                                   | 3 |
| Foreign language continued.....                                                | 4           | English 1 or State & Local Govt.<br>(Pol. Sci. 3) (4 or 3) or Money<br>and Banking (Econ. 3)..... | 3 |
| Am. Nat'l. Govt. (Pol. Sc. 1) or<br>Principles of Economics (Econ.<br>1) ..... | 5           | Shakespeare (English 23) or.....                                                                  | 3 |
| Am. Literature (English 16).....                                               | 2           | Literature (English 16).....                                                                      | 2 |

## THIRD YEAR

|                                   |     |                                                                               |     |
|-----------------------------------|-----|-------------------------------------------------------------------------------|-----|
| Intermediate English .....        | (3) | Intermediate English .....                                                    | (3) |
| Municipal Govt. (Pol. Sc. 4)..... | 3   | Science .....                                                                 | 5   |
| Foreign language continued.....   | 4   | State & Local Govt. (Pol. Sc. 3) or<br>Political Parties (Pol. Sc. 14) 3 or 2 |     |
| Logic (Philosophy 1).....         | 3   | Intro. to Philosophy (Phil. 2).....                                           | 3   |
| Rhetoric 15 or 6, or Psychology 1 | 3   | Foreign language .....                                                        | 4   |
| Sociology 1.....                  | 3   | Rhetoric 15 or 17, or Psychology 1                                            | 3   |
|                                   |     | Sociology 1.....                                                              | 3   |

## FOURTH YEAR

|                                                                                                                 |   |                                                                                                                                |        |
|-----------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------|--------|
| Rhetoric 15 or English 14.....                                                                                  | 3 | Rhetoric 15 or English 14.....                                                                                                 | 3      |
| Political Ethics (Phil. 9) or Const.<br>Law (Pol. Sc. 5).....                                                   | 3 | Contemporary politics (Pol. Sc. 18<br>or 28) .....                                                                             | 2 or 3 |
| History of U. S. (Hist. 21).....                                                                                | 3 | Social & Indust. Legis. (Pol. Sc.<br>11) .....                                                                                 | 3      |
| Public Finance, or Corporation<br>Management and Finance, or La-<br>bor Problems (Econ. 5 or 10 or<br>12) ..... | 3 | Industrial Consolidation, or Eco-<br>nomic History of Europe or So-<br>cialism and Social Reform<br>(Econ 11 or 13 or 21)..... | 3      |

## COURSE PRELIMINARY TO LAW

It is recognized by the best authorities on legal education that professional studies in law should be preceded by a thorough course in the humanities and the sciences. As a foundation for the study and practise of law, the following subjects offered by this College are of special importance: English, with special reference to composition and public speaking; Latin and French; logic; constitutional and political history; political science; economics; sociology.

By the proper selection of his studies it is possible for a prospective law student to take both the degree in arts and the degree in law in six years. The following first year courses in the College of Law, not exceeding a total of 24 hours, may be counted for the degree of Bachelor of Arts: Law 1 (contracts); Law 2 (torts); Law 3 (real property); Law 4 (pleading); Law 5 (criminal law); Law 6 (personal property). Law 1 may count for six hours only. *Students are not permitted to take this work in law until their senior year.* If the student is also a candidate for the degree of LL.B., or J.D., he should in his fourth year register in the College of Law, pay the usual fee of that College, and file a copy of his study-list with the adviser for seniors in this College. A fee of five dollars is charged for every law subject taken by students who do not pay the regular law school fee.

Courses in law do not in themselves constitute a major in this College, but six hours of law are accepted as part of the requirements for majors in the following departments: economics, history, political science, and sociology.

When taken by students registered in the College of Law, credit to a total of six hours toward the degree of LL.B., is accepted for courses offered by the College of Liberal Arts and Sciences in jurisprudence, international law, administrative law, and the law of taxation.

The degree of Bachelor of Arts is conferred at the close of the fourth year of the combined course provided that all the requirements for the degree are met at that time.

Candidates for the degree of Doctor of Law (J.D.) must take four hours in history, economics, political science, or sociology, in the fourth year of their course.

Students admitted to this University from other institutions may count the above courses in law for the degree of A.B. only on condition of completing at least 30 hours' work in residence in subjects offered by the College of Liberal Arts and Sciences.

## HOUSEHOLD SCIENCE

The courses in instruction given in this department are planned to meet the needs of four classes of students: (a) those students who desire a knowledge of the general principles and facts of household science; (b) those students who wish to make a specialty of household science for the purpose of teaching the subject in the secondary schools and colleges; (c) those students who wish some



knowledge of the principles underlying household administration and institutional management; (d) those students who are interested in the work of dietitians. Students who hold scholarships in household science must make this subject their major along one of the lines indicated above and take each semester at least four hours in household science or in subjects required for admission to the Courses in Household Science. The suggested courses for teachers and for institutional workers are outlined below. The electives of the junior and senior years of the course in administration make possible a choice between lunch room management and institutional management, while the first three years of the course as outlined for teachers give a scientific basis for the work of the dietitian. Students who major in household science must also satisfy the group requirements in the College of Liberal Arts and Sciences in so far as these are not covered in the courses before mentioned.

### Suggested Course for Teachers of Household Science

#### FIRST YEAR

##### FIRST SEMESTER

Inorganic Chemistry (Chem. 1)  
Home Architecture & Sanitation  
(Household Science 2)  
Introductory Zoology (Zool. 1)  
Rhetoric & Themes (Rhet. 1)  
Physical Training 7  
Hygiene (Physical Train. 9)

##### SECOND SEMESTER

\*Principles of the Selection and Preparation of Food (Household Sci. 1)  
Inorganic Chemistry (Chem. 2)  
Qualitative Analysis (Chem. 3)  
Rhetoric & Themes (Rhet. 1)  
Free Hand Drawing (Art & Design 1)  
Physical Training 7

#### SECOND YEAR

Agricultural Analysis (Chem. 13a)  
Economic Uses of Food (Household Science 6)  
Survey of English Literature (Eng. 1)  
Applied Design (Art & Design 12)

Organic Chemistry (Chem. 9)  
Organic Synthesis (Chem. 9c)  
Household Art and Clothing (Household Science 12)  
Survey of English Literature (Eng. 1)  
Plane Trigonometry (Math. 4)

#### THIRD YEAR

Minor Course in Physiol. (Physiol. 4)  
General Physics (Physics 2a)  
Physics Laboratory (Phys. 2b)  
Principles of Economics (Econ. 2)  
Foreign language  
Electives

Elementary Home Decoration (Household Science 3)  
Dietetics (Household Science 5)  
Bacteriology (Botany 5)  
Foreign language  
Electives

#### FOURTH YEAR

Food and Nutrition (Household Science 4)  
Principles of Education (Edu. 1)  
History of Home Economics (Household Science 13)  
Electives

Teachers' Course (Household Sci. 11)  
Principles of Secondary Education or Observation and Technique of Teaching (Education 6 or 10)  
Home Management (Household Science 10)  
Electives

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\*Attention is called to the fact that high school physics is a prerequisite for Household Science 1.

The following subjects are suggested as electives for the junior and senior years: Psychology 1, 2; Botany 1; foreign language.

### Suggested Course in Household Administration

#### FIRST YEAR

##### FIRST SEMESTER

Rhetoric & Themes (Rhet. 1)  
Free Hand Drawing (Art & Design 1)  
Home Architecture & Sanitation  
(Household Science 2)  
Economic Resources (Econ. 26)  
Foreign language  
Hygiene (Physical Train. 9)

##### SECOND SEMESTER

Rhetoric & Themes (Rhet. 1)  
Applied Design (Art & Design 12)  
Foreign language  
Introductory Zoology (Zoology 1)  
Textiles (Household Science 7)  
Physical Training

#### SECOND YEAR

Principles of Economics (Econ. 1)  
Survey of English Literature (Eng. 1)  
Inorganic Chemistry (Chem. 1)  
*Suggested Electives*  
History of Fine Art (Art & Design 19)  
Foreign language  
Introductory European History or  
History of the United States  
(Hist. 1 or 3)

Economic History of the United  
States (Econ. 22)  
Survey of English Literature (Eng. 1)  
\*Principles of the Selection & Pre-  
paration of Food (Household Sci. 1)  
Household Art & Clothing (House-  
hold Science 12)  
Inorganic Chemistry (Chem. 2)  
Qualitative Analysis (Chem. 3)  
*Suggested Electives*  
History of Fine Art (Art & Des. 19)  
Introductory European Hist. or Hist.  
of the United States (Hist. 1 or 3)  
Foreign language

#### THIRD YEAR

Economic Uses of Food (Household  
Science 6)  
Elementary Psychology (Psychology 1)  
Minor Course in Physiology (Phys-  
iology 4)  
*Suggested Electives*  
Logic (Philosophy 1)

Dietetics (Household Science 5)  
Elementary Home Decoration  
(Household Science 3)  
Elementary Psychology (Psychology  
2)  
Bacteriology (Botany 5)  
*Suggested Electives*  
Special Problems in the Service of  
Food (Household Science 14)  
Home Management (Household Sci. 10)

#### FOURTH YEAR

History of Home Econ. (H. Sci. 13)  
Principles of Sociology (Sociology 11)  
*Suggested Electives*  
Lunch Room Management (House-  
hold Science 18)  
Principles of Education (Education 1)  
Economics of the Family (Household  
Science 15)

*Suggested Electives*  
Ethics (Philosophy 7)  
Social Aspects of Education (Sociol-  
ogy 26)  
Social Education (Education 16)  
Problems in the Economics of the  
Family (Household Science 16)

### COURSE PREPARATORY TO MEDICINE

The following course of three years' work, outlined for students who are preparing for the study of medicine, includes the subjects offered in the first year of a standard course in medicine, with the exception of anatomy, together with the two years' work in arts and general science which is now required for admission to the better medical schools. Students who have completed the work

\*Attention is called to the fact that high school physics is a prerequisite for Household Science 1.



of the first two years and are taking the work of the third year are registered for that year as medical students at the University of Illinois College of Medicine.

A student who has completed the course outlined below and who then completes a year's work in medicine in a recognized medical school may receive credit by transfer for this year of medical work, and thus receive the degree of Bachelor of Arts from the University of Illinois. Under this plan the student may obtain the degrees of Bachelor of Arts and Doctor of Medicine with six years' work.

### Course Preparatory to Medicine

| FIRST SEMESTER                             |                    | FIRST YEAR                                      |    | SECOND SEMESTER |                   |
|--------------------------------------------|--------------------|-------------------------------------------------|----|-----------------|-------------------|
|                                            | S. H. <sup>1</sup> |                                                 |    |                 | S.H. <sup>1</sup> |
| General Chemistry (Chem. 1).....           | 5                  | Descrip. Inorg. Chem. (Chem. 2)....             | 2  |                 |                   |
| Rhetoric and Themes (Rhet. 1).....         | 3                  | Qualitative Analysis (Chem. 3).....             | 3  |                 |                   |
| Trigonometry (Math. 4).....                | 2                  | Rhetoric 1.....                                 | 3  |                 |                   |
| Zoology 1.....                             | 5                  | Zoology 2.....                                  | 5  |                 |                   |
| Military (Mil. 2).....                     | 1                  | Military (1, 2).....                            | 2  |                 |                   |
| Physical Training.....                     | 1                  | Physical Training.....                          | 1  |                 |                   |
| Total.....                                 | 17                 | Total .....                                     | 16 |                 |                   |
|                                            |                    | SECOND YEAR                                     |    |                 |                   |
|                                            | S. H.              |                                                 |    |                 | S. H.             |
| German 1 or 4, or Latin <sup>2</sup> ..... | 4                  | German 3 or 5 or 6, or Latin <sup>2</sup> ..... | 4  |                 |                   |
| Zoology 3.....                             | 3                  | Zoology 3.....                                  | 3  |                 |                   |
| Quantitative Analysis (Chem. 5a) ..        | 5                  | Organic Chem. (Chem. 9, 9c).....                | 5  |                 |                   |
| Physics 2a, 2b.....                        | 4                  | Physics 2a, 2b.....                             | 4  |                 |                   |
| Military 2.....                            | 1                  | Military 2.....                                 | 1  |                 |                   |
| Total .....                                | 17                 | Total .....                                     | 17 |                 |                   |
|                                            |                    | THIRD YEAR                                      |    |                 |                   |
|                                            | S. H.              |                                                 |    |                 | S. H.             |
| German 4.....                              | 4                  | German 5 or 6.....                              | 4  |                 |                   |
| Histology (Physiology 1).....              | 5                  | Physiology 2.....                               | 10 |                 |                   |
| Physiological Chem. (Chem. 15).....        | 5                  | Bacteriology (Botany 5).....                    | 5  |                 |                   |
| Psychology 1, 9.....                       | 5                  |                                                 |    |                 |                   |
| Total .....                                | 19                 | Total .....                                     | 19 |                 |                   |
|                                            |                    | FOURTH YEAR                                     |    |                 |                   |

No group requirements are *prescribed* for students who have completed the three years' course and desire to remain at the University the fourth year. Selection from the following courses is recommended: Bacteriology; Chemistry 5b, 5c, 9a, 9b, 14, 21, 22, 31, 105, and 106; Entomology 2, 3; Physiology 5; Psychology 113; Zoology 7, 8, 13, 13a; modern languages; and studies included in Group 5 of the general course in science. Upon the completion of this fourth year, the student takes his baccalaureate degree before going to the college of medicine.

<sup>1</sup>Semester hours. For definition see page 307.

<sup>2</sup>If Latin has not been offered for entrance.

## COURSES LEADING TO THE B.S. DEGREE

The following courses of instruction in this College lead ordinarily to the degree of Bachelor of Science.

## COURSE IN CHEMISTRY

A student may pursue a course in general science having chemistry as a major subject by conforming to the group requirements as outlined on page 161. Upon the completion of the course the candidate is granted the degree of Bachelor of Arts.

For the more specialized training of the chemist the following course, largely prescribed, has been arranged. It leads to the degree of Bachelor of Science in chemistry.

Preliminary preparation in German equivalent to two years of high school work or one year of university work is advised. Students who are unable to offer this may take German 1 and 3 in the freshman year, but will be required to take German 4 and 5 or 6 in place of other electives.

## Course in Chemistry

| FIRST SEMESTER                                     |                    | SECOND SEMESTER                                |                    |
|----------------------------------------------------|--------------------|------------------------------------------------|--------------------|
|                                                    | S. H. <sup>1</sup> |                                                | S. H. <sup>1</sup> |
| General Elementary Chemistry (Chem. 1).....        | 5                  | Analytical Geometry (Math. 6).....             | 5                  |
| Trigonometry (Math. 4).....                        | 2                  | Descriptive Inorganic Chemistry (Chem. 2)..... | 2                  |
| Advanced Algebra (Math. 2).....                    | 3                  | Qualitative Analysis (Chem. 3).....            | 3                  |
| German 4.....                                      | 4                  | German 5 or 6.....                             | 4                  |
| Military (Mil. 2).....                             | 1                  | Military (Mil. 2).....                         | 1                  |
| Gymnasium (Phys. Tr.).....                         | 1                  | Drill Regulations (Mil. 1).....                | 1                  |
|                                                    |                    | Gymnasium (Phys. Tr.).....                     | 1                  |
| Total.....                                         | 16                 | Total.....                                     | 17                 |
| SECOND YEAR                                        |                    | THIRD YEAR                                     |                    |
|                                                    | S. H.              |                                                | S. H.              |
| French 1.....                                      | 4                  | French 1.....                                  | 4                  |
| Quantitative Anal. (Chem. 5a).....                 | 5                  | Advanced Anal. Chem. (Chem. 5b).....           | 5                  |
| Physics 1, 3.....                                  | 5                  | Rhetoric 1.....                                | 3                  |
| Rhetoric 1.....                                    | 3                  | Physics 1, 3.....                              | 4                  |
| Military (Mil. 2).....                             | 1                  | Military (Mil. 2).....                         | 1                  |
| Total.....                                         | 18                 | Total.....                                     | 17                 |
| THIRD YEAR                                         |                    | FOURTH YEAR                                    |                    |
|                                                    | S. H.              |                                                | S. H.              |
| Mineralogy (Geology 5).....                        | 5                  | Organic Chemistry (Chem. 14, 9b).....          | 5                  |
| Organic Chemistry (Chem. 14, 9a).....              | 5                  | Physical Chem. (Chem. 31, 33).....             | 5                  |
| Journal Meeting (Chem. 92).....                    | 1                  | Journal Meeting (Chem. 92).....                | 1                  |
| Economics.....                                     | 2                  | Electives.....                                 | 3                  |
| Differential and Integral Calculus (Math. 8a)..... | 5                  | English 1 or History 3.....                    | 4                  |
| Total.....                                         | 18                 | Total.....                                     | 18                 |

<sup>1</sup>Semester hours. For definition see page 307.



## FOURTH YEAR

|                                                      | S. H.    |                                    | S. H.    |
|------------------------------------------------------|----------|------------------------------------|----------|
| Journal Meeting (Chem. 93).....                      | 1        | Journal Meeting (Chem. 93).....    | 1        |
| Thesis.....                                          | 5        | Ind. Chem. (Chem. 61 or Chem. 6) 2 | 2        |
| Electives in Chem.....                               | 5        | Thesis .....                       | 5        |
| Electives, history, economics or<br>equivalent ..... | 5        | Electives .....                    | 8        |
|                                                      | <hr/> 16 |                                    | <hr/> 16 |

The electives of the junior year and ten hours of the electives of the senior year must be taken elsewhere than in the department of chemistry. Some biological subject, philosophy, history, and economics are recommended.

## COURSE IN CHEMICAL ENGINEERING

The work of the technical chemist or superintendent is frequently so closely associated with mechanical and other engineering lines as to make a knowledge of these subjects essential. To meet these conditions, the following four-year course in chemistry and related engineering subjects has been arranged. The degree given is that of Bachelor of Science in chemical engineering.

Preliminary preparation in German equivalent to two years of high school or one year of university work is *prescribed*. It is also advised that students intending to take this course be prepared to offer mechanical drawing and manual training for entrance.

Where this preliminary training is lacking, students are advised, if possible, to register in shop work and general engineering drawing during the early years of their course.

## Course in Chemical Engineering

| FIRST SEMESTER                                 |                    | FIRST YEAR |  | SECOND SEMESTER                                   |                    |
|------------------------------------------------|--------------------|------------|--|---------------------------------------------------|--------------------|
|                                                | S. H. <sup>1</sup> |            |  |                                                   | S. H. <sup>1</sup> |
| General Elementary Chemistry<br>(Chem. 1)..... | 5                  |            |  | Analytical Geometry (Math. 6).....                | 5                  |
| Trigonometry (Math. 4).....                    | 2                  |            |  | Descriptive Inorganic Chemistry<br>(Chem. 2)..... | 2                  |
| Advanced Algebra (Math. 2).....                | 3                  |            |  | Qualitative Analysis (Chem. 3).....               | 3                  |
| German 4.....                                  | 4                  |            |  | German 5 or 6.....                                | 4                  |
| Military (Mil. 2).....                         | 1                  |            |  | Military (Mil. 2).....                            | 1                  |
| Gymnasium (Phys. Tr.).....                     | 1                  |            |  | Drill Regulations (Mil. 1).....                   | 1                  |
|                                                | <hr/>              |            |  | Gymnasium (Phys. Tr.).....                        | 1                  |
| Total.....                                     | 16                 |            |  | Total .....                                       | 17                 |

<sup>1</sup>Semester hours. For definition see page 307.

## SECOND YEAR

| S. H.                                                 |    | S. H.                                            |    |
|-------------------------------------------------------|----|--------------------------------------------------|----|
| Differential and Integral Calculus<br>(Math. 8a)..... | 5  | Analytical Mech. (T. & A. M. 7)....              | 3  |
| Quantitative Anal. (Chem. 5a).....                    | 5  | Advanced Analytical Chemistry<br>(Chem. 5b)..... | 5  |
| Physics 1, 3.....                                     | 5  | Rhetoric 1.....                                  | 3  |
| Rhetoric 1.....                                       | 3  | Physics 1, 3.....                                | 4  |
| Military (Mil. 2).....                                | 1  | Economics 22.....                                | 3  |
|                                                       |    | Military (Mil. 2).....                           | 1  |
| Total .....                                           | 19 | Total .....                                      | 19 |

## THIRD YEAR

| S. H.                                  |    | S. H.                                        |    |
|----------------------------------------|----|----------------------------------------------|----|
| Gas and Fuel Anal. (Chem. 65).....     | 2  | Physical Chem. (Chem. 31, 33).....           | 5  |
| Mineralogy (Geol. 5).....              | 5  | Organic Chem. (Chem. 14, 9b).....            | 5  |
| Analytical Mech. (T. & A. M. 8).....   | 2½ | Dynamo Electric Machinery<br>(E. E. 16)..... | 4  |
| Resistance of Mater. (T. & A. M. 9) 3½ |    | Journal Meeting (Chem. 92).....              | 1  |
| Organic Chem. (Chem. 14, 9a).....      | 5  |                                              |    |
| Journal Meeting (Chem. 92).....        | 1  |                                              |    |
| Total .....                            | 19 | Total .....                                  | 15 |

## FOURTH YEAR

| Hours                                  |    | Hours                                    |    |
|----------------------------------------|----|------------------------------------------|----|
| Met. Lab. and Assaying (Chem. 69)..... | 2  | Electives in Chemistry.....              | 3  |
| Electro-chemistry (Chem. 35).....      | 3  | Thesis (Chem. 11).....                   | 5  |
| Alternating Currents (E. E. 6).....    | 2  | Chemical Technology (Chem. 6).....       | 2  |
| Metallurgy (Chem. 7).....              | 2  | Industrial Chemical Lab. (Chem. 61)..... | 2  |
| Thesis (Chem. 11).....                 | 5  | Journal Meeting (Chem. 93).....          | 1  |
| Journal Meeting (Chem. 93).....        | 1  | Economics or Philosophy.....             | 3  |
| Totals .....                           | 15 | Totals .....                             | 16 |

## COURSE IN CERAMICS

To graduate in ceramics the student must follow one of the courses outlined below. The conditions are such that little election can be allowed.

Special courses will be arranged for those who wish a limited amount of work in ceramics, but those pursuing them will not be entitled to a degree and will not be recognized as graduates.

## Course in Ceramics

## FIRST YEAR

| FIRST SEMESTER              | S. H. <sup>1</sup> | SECOND SEMESTER                   | S. H. <sup>1</sup> |
|-----------------------------|--------------------|-----------------------------------|--------------------|
| Chemistry 1.....            | 5                  | Chemistry 2 & 3.....              | 5                  |
| Adv. Algebra (Math. 2)..... | 3                  | Analyt. Geom. (Math. 6).....      | 5                  |
| Trig. (Math. 4).....        | 2                  | Descript. Geom. (G. E. D. 2)..... | 3                  |
| Gen. Eng. Drawing 1.....    | 3                  | Rhetoric 1.....                   | 3                  |
| Rhetoric 1.....             | 3                  |                                   |                    |
| Mil. & Phys. Tr. 1, 1a..... | 2                  | Mil. & Phys. Tr. 1a.....          | 2                  |
|                             | 18                 |                                   | 18                 |

## SECOND YEAR

| Physics 1 & 3.....       | 5  | Physics 1 & 3.....                     | 4  |
|--------------------------|----|----------------------------------------|----|
| Chemistry 5a.....        | 5  | Chemistry 5b.....                      | 5  |
| Calculus (Math. 8a)..... | 5  | Elements of Mech. (T. & A. M. 14)..... | 4  |
| Military Drill.....      | 1  | Ceramic Materials (Cer. 1).....        | 3  |
|                          |    | Military Drill.....                    | 1  |
|                          | 16 |                                        | 17 |

<sup>1</sup>Semester hours. For definition see page 307.



## THIRD YEAR

|                                         |          |                                    |          |
|-----------------------------------------|----------|------------------------------------|----------|
| German 4 or French 1 or 2.....          | 4        | German 6 or French 1 or 2.....     | 4        |
| Winning & Preparation (Cer. 2).....     | 3        | Body Making (Cer. 5).....          | 5        |
| Indust. Calc. (Cer. 3).....             | 3        | Designing & Shaping (Cer. 12)..... | 3        |
| Strength of Mater. (T. & A. M. 15)..... | 3        | Theory of Silicates (Cer. 17)..... | 3        |
| Mining Methods (Min. 3).....            | 2        | Surveying (C. E. 10).....          | 2        |
|                                         | <hr/> 15 |                                    | <hr/> 17 |

## FOURTH YEAR

|                                |          |                                         |          |
|--------------------------------|----------|-----------------------------------------|----------|
| Mineralogy (Geol. 5).....      | 5        | Eng. Geol. (Geol. 13).....              | 5        |
| Glazes (Cer. 6).....           | 5        | Glass (Cer. 8).....                     | 3        |
| Cements (Cer. 10).....         | 3        | Steam Engines & Boilers (M. E. 11)..... | 3        |
| Drying & Burning (Cer. 4)..... | 4        | Thesis (Cer. 11).....                   | 5        |
|                                | <hr/> 17 |                                         | <hr/> 16 |

## Course in Ceramic Engineering

## FIRST YEAR

| FIRST SEMESTER              | S. H. <sup>1</sup> | SECOND SEMESTER                   | S. H. <sup>1</sup> |
|-----------------------------|--------------------|-----------------------------------|--------------------|
| Chemistry 1.....            | 5                  | Chemistry 2 & 3.....              | 5                  |
| Adv. Algebra (Math. 2)..... | 3                  | Analyt. Geom. (Math. 6).....      | 5                  |
| Trig. (Math. 4).....        | 2                  | Descript. Geom. (G. E. D. 2)..... | 3                  |
| Gen. Eng. Drawing 1.....    | 3                  | Rhetoric 1.....                   | 3                  |
| Rhetoric 1.....             | 3                  | Mil. & Phys. Tr.....              | 2                  |
| Mil. & Phys. Tr. 1, 1a..... | 2                  |                                   |                    |
|                             | <hr/> 18           |                                   | <hr/> 18           |

## SECOND YEAR

|                         |          |                                 |          |
|-------------------------|----------|---------------------------------|----------|
| Physics 1 & 3.....      | 5        | Physics 1 & 3.....              | 4        |
| Chemistry 5a.....       | 5        | Chemistry 5b.....               | 4        |
| Calculus (Math. 7)..... | 5        | Calculus (Math. 9).....         | 3        |
| Military Drill.....     | 1        | Theoret. & App. Mechan. 7.....  | 3        |
|                         |          | Ceramic Materials (Cer. 1)..... | 3        |
|                         |          | Military Drill.....             | 1        |
|                         | <hr/> 16 |                                 | <hr/> 18 |

## THIRD YEAR

|                                          |          |                                         |          |
|------------------------------------------|----------|-----------------------------------------|----------|
| German 4 or French 1 or 2.....           | 4        | German 6 or French 1 or 2.....          | 4        |
| Winning & Preparation (Cer. 2).....      | 3        | Body Making (Cer. 5).....               | 5        |
| Indust. Calc. (Cer. 3).....              | 3        | Designing & Shaping (Cer. 12).....      | 3        |
| Analyt. Mechanics (T. & A. M. 8).....    | 2½       | Steam Engines & Boilers (M. E. 11)..... | 3        |
| Resist. of Materials (T. & A. M. 9)..... | 3½       | Surveying (C. E. 10).....               | 2        |
|                                          | <hr/> 16 |                                         | <hr/> 17 |

## FOURTH YEAR

|                                |          |                                     |          |
|--------------------------------|----------|-------------------------------------|----------|
| Glazes (Cer. 6).....           | 5        | Engineering Geology (Geol. 13)..... | 5        |
| Cements (Cer. 10).....         | 3        | Ceramic Constr. (Cer. 9).....       | 5        |
| Drying & Burning (Cer. 4)..... | 4        | Glass (Cer. 8).....                 | 3        |
| Mining Methods (Min. 3).....   | 2        | Thesis (Cer. 11).....               | 4        |
| Chemistry 65.....              | 2        |                                     |          |
|                                | <hr/> 16 |                                     | <hr/> 17 |

## COMBINED ARTS AND ENGINEERING COURSE

A graduate of the College of Liberal Arts and Sciences whose mathematical training includes the work of the calculus, who has had the usual college course in physics, and sufficient training in the principles of mechanics to enable him to begin the mechanics

<sup>1</sup>Semester hours. For definition see page 307.

of the junior year, may receive the degree of Bachelor of Science in the departments of the College of Engineering upon the completion of sixty-eight credit hours in such lines (including thesis) as may be directed by the faculty. This work may ordinarily be done in two academic years. Candidates for the degree in the department of architecture are not required to be prepared in calculus or mechanics, but should possess special preparation in drawing. The courses in the College of Engineering which may be counted for the degree of A.B. are listed on page 160 above.

### PREPARATION OF TEACHERS

For information concerning the preparation of teachers and the recommendation of the University committee on appointments see page 239.

### HONORS

#### *The Honor Degree*

The faculty of the College of Liberal Arts and Sciences continues for 1913-14 the system formerly carried on by the College of Literature and Arts of recommending candidates for the degree of A.B. with honors in a particular subject, under the following conditions:

1. The amount of work required in the honor subject shall be that required for a major in that subject.

2. The candidate must also offer two minor subjects. Not less than 9 hours will be accepted in either subject, and the aggregate for both subjects must be at least 24 hours.

3. The work done in the minor subjects must be of a distinctly superior quality; grades of at least 85 are required in all the minor subjects; especially poor or careless work in any other subject may, by vote of the faculty, cause the honor degree to be withheld.

4. Each candidate is required to present an acceptable thesis in his major subject; the thesis may be written in connection with some recognized course in the department.

5. The honor subjects at present recognized in this College are as follows: The classics (either the classics as a whole, or Greek or Latin separately), economics, education, English, German, French, history, mathematics, philosophy, political science, psychology, sociology. The specific requirements for honors in particular subjects are stated in connection with the description of courses for the several departments, pages 307 below



The purpose of these honors is not to encourage premature specialization, but to give special recognition to students who have pursued with success carefully correlated courses of study, and to emphasize the importance, for scholarship in any given subject, of thoro training in other more or less related subjects. Candidates should announce their intention as early as possible in their college course and consult freely with the head of the department concerned in regard to the selection of their studies.

#### *Preliminary Honors*

The University regulations regarding preliminary honors are stated above, page 120.

#### *Freshman Honors*

At the close of each year a list of those members of the freshman class who have made an especially good record in scholarship is prepared. The names of such students are announced at an assembly of the College; notice is also sent in each case to the parent or guardian, and to the principal of the high school of which the student is a graduate.

#### *Honorary Societies*

For information concerning the honorary societies represented in the University, see page 139.

# THE COLLEGE OF ENGINEERING

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For a description of the *buildings* occupied by this College, see page 67; for collections belonging to it (architecture, civil engineering, electrical engineering, mechanical engineering, and railway engineering), see page 78; for *clubs* and *societies auxiliary to its courses of study*, see page 140; for *fees*, see page 148; for *honors*, see page 120; for *honorary societies*, see page 139.

## GENERAL STATEMENT

The purpose of the College is to train young men for the profession of engineering. In arranging its courses of study and practise, cultural subjects are interwoven with the strongly theoretical subjects which underlie and reinforce the more practical developments of the several departments. The instruction of the classroom and the practise afforded by the library, the drafting-room, and the laboratory proceed hand in hand. Throughout his course the student works upon problems and proceeds by methods similar to those which enter into the experience of the practising engineer.

## ADMISSION

See the general statement of the entrance requirements of the University, pages 88ff.

## SPECIAL STUDENTS

See the statement of the general regulations of the University in regard to special students, page 96.

## DESCRIPTION OF DEPARTMENTS

The College of Engineering comprizes the following departments:

DEPARTMENT OF ARCHITECTURE, with courses in—

Architecture

Architectural Engineering

DEPARTMENT OF CIVIL ENGINEERING

DEPARTMENT OF ELECTRICAL ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING



DEPARTMENT OF MINING ENGINEERING

DEPARTMENT OF MUNICIPAL AND SANITARY ENGINEERING

DEPARTMENT OF THEORETICAL AND APPLIED MECHANICS

DEPARTMENT OF PHYSICS

DEPARTMENT OF RAILWAY ENGINEERING<sup>1</sup>, with courses in—

Railway Civil Engineering

Railway Electrical Engineering

Railway Mechanical Engineering

## ARCHITECTURE

The department of architecture offers two courses leading to the first degree, the course in architecture and the course in architectural engineering. The aim of these courses is to give the broadest preparation for the practise of architecture.

The course in architecture aims primarily to train the student to produce correct, thoughtful, and beautiful works of architecture. The schedule of studies includes a broad field of liberal and scientific subjects to supply the background for creative work and to give a knowledge of the principles involved in the processes of safe and economical construction. The course also includes much free-hand drawing for the purpose of training the eye to recognize correct proportion and training the hand to skillful and rapid drawing. The main portion of the course, however, consists of the study of architectural forms and principles and their application in architectural design.

The course in architectural engineering gives a thorough groundwork in mathematics and applied mechanics, and includes such studies as strength of materials, bridge, mill, and tall building construction, reinforced concrete, etc. The general principles of these subjects are applied to all forms of building construction in a course given in the senior year, known as architectural engineering. While specializing in construction, this course includes also the study of the forms and principles of architecture through such subjects as free-hand drawing, architectural history, architectural drawing, and architectural design.

Both courses in architecture prepare the student for the examinations of the Illinois State Board of Examiners of Architects, and graduates of the department are exempt from examinations required

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<sup>1</sup>The School of Railway Engineering and Administration offers, in addition to the three courses named here, courses in railway transportation and railway traffic and accounting under the direction of the department of economics of the College of Liberal Arts and Sciences. See pages 168-170 above.

for entrance into the American Institute of Architects, and from the preliminary examination for the prize in Architecture of the American Academy at Rome. The Plym Fellowship in Architecture is awarded annually to a graduate of the department. This prize amounts to \$1,000 and provides for one year of travel for the study of architecture abroad. It is awarded by competition.

Students intending to take up the study of architecture should take free-hand and mechanical drawing and general history in high school.

#### EQUIPMENT

The collections of rendered and working drawings, lantern slides, plates, photographs, casts, specimens of American woods, building materials, and appliances are noted under "Collections" on page 78. A Zeiss epidiascope is used for direct projection of photographs, colored plates, etc., and a double electric lantern for projecting two pictures on the screen at once for comparative study. Geometrical and architectural models are lighted by a light fixed at the conventional angle for demonstration of the subjects of shades and shadows and conventional rendering. Wall space in the corridors of the department and in all drafting rooms has been prepared for exhibition purposes, and collections of drawings are constantly displayed. The department occupies the entire fourth floor of Engineering Hall, and a large part of the third; its quarters include drafting rooms for undergraduate and graduate work, library, lecture rooms, studios for free-hand drawing, etc.

#### CIVIL ENGINEERING

The purpose of this department is to furnish a course of theoretical instruction, accompanied and illustrated by a large amount of practise. While the instruction aims to be practical by giving the student information and practise directly applicable in his future professional work, the prime object is the development of the mental faculties. The power to acquire information and the ability to use it are held to be of greater value than any amount of so-called practical knowledge.

#### EQUIPMENT

This department has an equipment of compasses, engineers' transits, solar transits, levels—ordinary and precise—plane tables, sextants, etc. The department is also provided with a collection of structural shapes, including full-sized joints of an actual railroad bridge, sections of columns, I-bars, etc., and with lithographs, photographs, and blue-prints of bridges and buildings.



The *cement laboratory* occupies rooms in the Mechanical Engineering Laboratory, and is provided with slate tables, testing machines, molding machines, sieves, etc., and sample barrels of hydraulic cement, varieties of sand, and other necessary materials.

The *road laboratory* occupies a room in the Mechanical Engineering Laboratory, and is provided with machines for testing the resistance of macadam material to impact and abrasion and for making the cementation test. The laboratory is also supplied with rattlers and other devices for testing paving material.

## ELECTRICAL ENGINEERING

This department provides a course of study in theoretical and applied electricity. The first two years of work are substantially the same as in the other engineering courses, including practical work in drafting room and shop, as well as instruction in the fundamental principles of mathematics and physics. With the third year the fundamental studies relate more directly to electrical engineering. A course in dynamo machinery is followed by the theory of alternating currents, while laboratory and design courses emphasize underlying principles. Technical courses cover the generation, transmission, and distribution of electric power, and its various applications. In the laboratory a study of dynamo characteristics is followed in the fourth year by progressive experiments involving the operation of electrical machinery in principle and practice. Investigation of the problems of power distribution is a feature of advanced laboratory and thesis work.

## EQUIPMENT

The 500 kilowatt power plant of the University supplies the electrical engineering laboratory with the current needed for its operation.

The power equipment in the electrical engineering laboratory includes forty direct current machines with a total capacity of 375 kilowatts, twenty alternating current machines with a total capacity of 300 kilowatts, and fifty transformers with a total capacity of 350 kilowatts. A 17-panel experimental switchboard affords adequate distribution and control.

The instrument room contains standards for the calibration of commercial instruments of all types. There are two hundred and fifty portable instruments for experimental work. A new 240-ampere-hour storage battery has been installed. The graduate lab-

oratory contains apparatus for research work, including four oscillographs, one 2000-cycle alternator, one 200,000-volt transformer, and apparatus for high voltage direct current investigations. The photometer room contains apparatus for tests of the various light sources. Two special 100-line switchboards are connected with cables and apparatus for experiments in telephony. The equipment for electrometallurgical work includes one 30-kilowatt induction furnace, one 25-kilowatt arc furnace, two 30-kilowatt resistance furnaces, and an annealing furnace.

### MECHANICAL ENGINEERING

The courses in mechanical engineering are planned to present the theory and practise involved in the generation and transmission of power, and in the design, construction, operation, and testing of machinery of all kinds.

#### EQUIPMENT

To supplement and amplify the theoretical work of the class room, the department is provided with designing rooms and laboratories as follows:

*The Designing Rooms* are equipped with drawing tables, and are supplied with reference books, files of trade catalogs, gear charts, and collections of blue-prints. A collection of kinematic models, sectional steam specialties, lantern slides, and photographs is also available.

*The Mechanical Engineering Laboratory* is equipped with machines and testing instruments for instruction in steam engineering, gas power engineering, refrigeration, heating, and ventilation. Among the more important pieces of apparatus are the 210 h. p. experimental boiler, equipped with chain-grate stoker, fuel economizer, and induced draft; a separately fired steam superheater; a number of types of throttling, high speed automatic, and Corliss steam engines; several steam condensers; a compound two-stage air compressor; a large compound duplex steam pump; a Kerr steam turbine; a DeLaval turbo-pump; a 200,000 lb. Lea water-flow; a 10-ton ammonia compression refrigerating machine; a number of typical gas, gasoline, and oil engines; a 50 h. p. suction gas producer, and several house-heating boilers and furnaces. The central heating and power plant contains a variety of types of boilers, stokers, pumps, and engines in commercial service.

*The Shop Laboratories* are provided with suitable machinery and apparatus to illustrate the several shop processes involved in the



manufacture of machinery. In these laboratories emphasis is given to the engineering principles involved in machine construction and to the important problems of scientific shop management. These laboratories include the *Wood Shop* with an equipment of benches, lathes, machinery, and small tools needed in pattern construction; the *Foundry* equipped with cupola, brass furnaces, core ovens, molding machines, and facilities for bench and floor molding; the *Forge Shop* equipped with forges, anvils and small tools, a steam hammer, a power-driven punch and shear, and with gas and electric furnaces; and the *Machine Shop* with an equipment of lathes, planers, shapers, milling machines, grinders, boring mills, drill presses, and with typical small tools and fixtures used in manufacturing.

### MECHANICS, THEORETICAL AND APPLIED

The courses in theoretical and applied mechanics are designed to meet the needs of students of engineering.

The *Laboratory of Applied Mechanics* comprizes the materials testing laboratory and the hydraulics laboratory. The materials laboratory is equipped with testing machines for tension, compression, flexure, and torsion, and for testing various kinds of structural materials. The equipment includes a testing machine having a capacity of 600,000 pounds, arranged to take large and bulky pieces in tension, compression, and flexure. The hydraulics laboratory has a standpipe, pumps, water motors and turbine, measuring pits, Venturi meters, weir conduits, meter rating conduit, orifice boxes, weir boxes, and apparatus for experimental work on flow of water through pipes, hose, and nozzles. The University pumping station furnishes a supply of water at pressures up to 100 pounds a square inch.

### MINING ENGINEERING

The department of mining engineering offers courses of instruction relating to the science and practise of mining and metallurgy to train young men for the various phases of mineral industry.

The work of the department adds to the usual courses in mathematics, languages, chemistry, physics, geology, and general engineering, specialized work in mining, such as mine surveying, mine ventilation, mining machinery, coal washing, and ore concentration, metallurgy, administration and organization of mines, mining law, and the design of mining and metallurgical structures.

In addition to its work of instruction, the department concerns itself with the development and dissemination of such scientific facts as are likely to be of service in improving the practise of mining, with reference to efficiency in operation, to the security of life in the mines, and to the conservation of the fuel and other mineral resources of the State.

### EQUIPMENT

The drawing rooms contain the catalogs of the manufacturers of mining machinery with a complete card index, the standard reference books on mine drafting, models of mine structures, and a collection of blue prints and drawings of mine structures.

The mine-gas and safety-lamp laboratory contains safety lamps of different types, electric and magnetic locking appliances, a photometer, a dark room for photometric work, Oldham and Hailwood safety-lamp testing apparatus, and appliances for gas and dust analysis.

The coal washing and ore dressing laboratory contains for crushing, rolls, gyratory and jaw crushers, and a 500-pound 3-stamp battery; for screening and sizing, trommels, shaking and vibrating screens, and V boxes; for concentrating and cleaning, pan, piston and pulsating jigs, bumping table, vanner, concentrating table, and slimer. These machines can handle from 3 to 5 tons of coal and one ton of ore an hour. There is also a complete sampling and drying equipment, a cyanide testing plant, and other small appliances used for preliminary testing. Adjoining this laboratory is a chemical and assay laboratory equipped for the analytical work required in connection with coal washing and ore concentration.

The explosives and drilling laboratory contains the principal types of rock drills, a diamond drill, coal cutters, and a complete outfit for demonstrating the use of explosives.

### MINE RESCUE STATION AND LABORATORIES

Cooperating with the department of mining engineering and with the State Geological Survey, the Federal Government has established at the University a mine rescue station in charge of a resident mining engineer. The purpose of the station is to interest all connected with the mining industry in such modern appliances as breathing and resuscitation apparatus, as part of the normal equipment of mines. At the station mine bosses and others are trained in the use of such apparatus, this service being rendered freely to all who may desire the benefits thereof.



The station offers to the student in mining engineering an opportunity for studying rescue and first aid work. Students are brought into contact with men in practise from all parts of Illinois and surrounding states who come to the station for training. About the present station as a nucleus other laboratories for experimental work in connection with mining are being developed, and are accessible for the use of students in mining engineering.

A laboratory is maintained jointly by the department of mining engineering, the State Geological Survey, and the United States Bureau of Mines for the study of mine dusts and mine gases. It is also available for the purpose of demonstration to university classes.

### MUNICIPAL AND SANITARY ENGINEERING

This course is designed to train for the varied duties of the engineer employed on the design, construction, and operation of public works and public utilities, and for general engineering work.

The methods of training are intended to develop power to take up and solve new problems connected with municipal public works, as well as to design and to superintend the ordinary constructions. Surveying, structural materials, and structural design are taught as in the civil engineering course. Chemistry and bacteriology are given so far as is necessary to a comprehension of the questions involved in water supply and sewage disposal; and instruction is given in mechanical and electrical engineering in the generation and transmission of power.

### PHYSICS

The department of physics occupies the Laboratory of Physics. This building supplies facilities and equipment for instruction and investigation in physics. Gas, distilled water, compressed air and vacuum, and direct and alternating electric currents of a wide range in amperes and in volts are available in all parts of the building. There is a collection of over 4,000 pieces of apparatus for the courses of instruction offered and also for advanced work, and only a small part of the equipment is antiquated. New investigations can usually be started with the apparatus on hand. There are two workshops, one for the advanced students and instructors, and one for the mechanic of the department. The students' shop is equipped with lathes, drill press, bench tools, etc. The mechanic's shop contains lathes, milling machines, drill press, and other facilities for fine machine work.

The University library contains all the important sets of journals of physics and the related sciences in English, French, and German. The recent volumes of the physical journals, together with a collection of text-books, encyclopedias, dictionaries, and other reference books, are also found in the special library of the Laboratory.

### RAILWAY ENGINEERING\*

The department of railway engineering is organized to serve those who wish to prepare themselves for service in the technical departments of railways. The course in railway civil engineering adds to the fundamentals of a well-rounded engineering course a group of special subjects which concern the location, construction, and maintenance of railways. The course in railway electrical engineering emphasizes the design and construction of those details peculiar to electric railway lines; the operation and performance of electric cars and locomotives; and the development of the more general problems which arise in the electrification of existing steam lines. The course in railway mechanical engineering is intended to meet the requirements of those who are especially interested in steam railroad equipment. It deals with the design, construction, and maintenance of various types of railway cars; with conditions affecting train resistance; with the design and operation of steam locomotives; and with tests disclosing their performance.

#### EQUIPMENT

Three steam roads—the Illinois Central, the Cleveland, Cincinnati, Chicago & St. Louis, and the Wabash railroads—and two electric interurban roads—the Illinois Traction System and the Kankakee and Urbana railway—enter Champaign and Urbana. The department enjoys the interest and cooperation of the officers of these railways, and is afforded by their courtesy numerous opportunities for practical road tests and field work. The division shops of the C., C., C. & St. L. railroad are located at Urbana and provide additional opportunity for similar work.

The department owns and operates, jointly with the Illinois Central Railroad, a railway test car designed for experimental work on steam roads. It is fully equipped for making train resistance and locomotive performance tests, and during the last eleven years has been in frequent operation in carrying on resist-

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\*See also *School of Railway Engineering and Administration*, page 241.



ance and tonnage rating tests on the Illinois Central Railroad and on several eastern roads.

For work on electric roads the department owns also an electric test car, of the interurban type, especially designed and built for the University for experimental work. It is equipped with four 50 horse-power direct current motors and with the Westinghouse multiple control system, and is provided with instruments for recording power, speed, acceleration, and the other data needed in road tests. Through the courtesy of the Illinois Traction System this car is operated on its lines, which enter the campus of the University.

The department laboratory equipment includes a drop-testing machine and a brake-shoe testing machine, both constructed in accordance with the standards of the Master Car Builders' Association. The drop-testing machine is designed for use in testing the strength of railroad rails, car axles, car couplers, and draft gears, and may be used in studies of the physical properties of structural materials of any sort. The brake-shoe testing machine supplies means for determining the wearing properties and frictional qualities of brake-shoes, such as are employed in regular service on railroad trains.

A locomotive testing plant, equipped from the original designs of the department, occupies a building 40 by 115 feet. The plant is devoted exclusively to making tests to determine the performance of locomotives. The locomotives tested are furnished by certain western railroad systems under an arrangement which insures the maintenance in the plant of a locomotive which at all times shall be of latest design.

Much of the work in the railway courses is given in the departments of civil, electrical, and mechanical engineering, and the shop and laboratory equipment of these departments is available for students of the railway department.

### SUGGESTED ELECTIVES

The following courses are suggested as electives for students in the College of Engineering whose time is not fully occupied with required work:

Accountancy, Art and Design 1; Astronomy 3 and 6; Chemistry 2, 3, 16, 31, 34, 35; economics; Geology 13; Mathematics 9a, 10, 16, 21a, 22a; Rhetoric 3, 7, 10; Physics 15, 16, 17; Political Science 17; Library 12; Architecture 43, 44, 55, 57; Civil Engineering 4a, 5,

21, 22; Electrical Engineering 1, 2, 5, 6, 16, 29; Mechanical Engineering 7, 27, 30, 31; Railway Engineering 11, 61; *for students of architecture*, History 1, 9; landscape design; French and German.

### SUMMER READING

All engineering students not graduates of a literary college are required to complete prescribed courses of reading of a non-professional character during the summer vacations following the freshman and sophomore years. The purpose of the summer reading is to increase the acquaintance of the student with literature, history, and general science, to develop in him a taste for such reading, and to impress him with the importance of such knowledge not only as a source of individual enjoyment, but as a practical aid to engineers in their social and business relations.

A circular on summer reading is issued, containing a list of books from which the students may choose. The books have been selected for their value in providing general training, but an attempt has been made to include only readable and attractive works. A statement of the books read during the summer is required at the beginning of the next college year.

### GENERAL ENGINEERING LECTURES FOR FRESHMEN

One general lecture, sufficiently popular in character to interest and inspire young engineers, will be given each week. All freshman engineers are expected to attend this lecture.

### TRIPS OF INSPECTION

The departments of the College of Engineering arrange trips of inspection for their students, to supplement the theoretical instruction of the classroom. The time occupied by the trip is three or four days, and the works visited are usually in Chicago or Milwaukee. The trips are taken during term time under the supervision of University authorities. The inspection trip forms an integral part of the course, and it is expected that all students eligible will participate. Students can be excused from attendance by the head of the department only, and if so excused, they are required, during the period occupied by the trip, to perform a set schedule of work approved by the head of the department. Students whose standing is such that they can ill afford to take the time from their academic duties may be required to remain at the University.

Each student who participates in a trip is required to make a report or submit to an examination upon the work inspected.



## COURSES OF STUDY AND DEGREES

The courses of study leading to the degree of Bachelor of Science in the College of Engineering, as scheduled for the year 1913-1914, are given herewith in full. Each of the ten courses given may ordinarily be completed in a period of four years.

A graduate of the University of Illinois in architectural, civil, electrical, mechanical, mining, municipal and sanitary, or railway engineering may receive the degree of an allied course upon the completion of from thirty to thirty-six semester hours of work approved by the faculty. This work may ordinarily be done in one academic year.

A graduate of the College of Liberal Arts and Sciences of the University of Illinois, or of any college of equal standing, whose mathematical training includes the work of the calculus, who has had the usual course in physics, and who has had sufficient training in the principles of mechanics to enable him to begin the mechanics of the junior year, may receive the degree of Bachelor of Science in Engineering upon the completion of sixty-eight credit hours of work in engineering under the direction of the faculty. This work may ordinarily be done in two academic years. Candidates for the degree in the department of architecture are not required to be prepared in calculus or mechanics, but should have special preparation in drawing.

## Course Required for Degree of B. S. in Architecture

## FIRST YEAR

| FIRST SEMESTER                          |                    | SECOND SEMESTER                              |                    |
|-----------------------------------------|--------------------|----------------------------------------------|--------------------|
|                                         | S. H. <sup>1</sup> |                                              | S. H. <sup>1</sup> |
| Math. 4 <sup>2</sup> —Trigonometry..... | 2                  | Chem. 1a <sup>3</sup> or 1b—Inorg. Chem..... | 4                  |
| Math. 2—Advanced Algebra.....           | 3                  | T. & A. M. 14—Elem. Mech.....                | 4                  |
| Rhet. 1—Rhetoric and Themes.....        | 3                  | Rhet. 1—Rhetoric and Themes.....             | 3                  |
| G. E. D. 2—Descriptive Geometry         | 4                  | Arch. 32—Arch. and Freehand                  |                    |
| Arch. 31—Arch. and Freehand             |                    | Drawing .....                                | 4                  |
| Drawing .....                           | 4                  | Mil. 2—Military Drill.....                   | 1                  |
| Mil. 2—Military Drill.....              | 1                  | Mil. 1—Drill Regulations.....                | 1                  |
| Phys. Tr. 1—Gymnasium.....              | 1                  | Phys. Tr. 1—Gymnasium.....                   | 1                  |
| Total .....                             | 18                 | Total .....                                  | 18                 |

## SECOND YEAR

|                                  |    |                                  |    |
|----------------------------------|----|----------------------------------|----|
| Phys. 6a—Physics Lectures.....   | 2  | Phys. 6a—Physics Lectures.....   | 2  |
| Phys. 6b—Physics Laboratory..... | 2  | Phys. 6b—Physics Laboratory..... | 2  |
| T. & A. M. 15—Strength of Mater  | 3  | T. & A. M. 16—Strength of Mater. | 3  |
| Arch. 13—History of Arch.....    | 2  | Arch. 14—History of Arch.....    | 2  |
| Arch. 23—Freehand Drawing.....   | 2  | Arch. 24—Freehand Drawing.....   | 2  |
| Arch. 33—Design.....             | 3  | Arch. 34—Design.....             | 3  |
| Arch. 43—Working Drawings.....   | 3  | Arch. 44—Working Drawings.....   | 3  |
| Mil. 2—Military Drill.....       | 1  | Mil. 2—Military Drill.....       | 1  |
| Total .....                      | 18 | Total .....                      | 18 |

## THIRD YEAR

|                                   |    |                                   |    |
|-----------------------------------|----|-----------------------------------|----|
| French or German.....             | 4  | French or German.....             | 4  |
| Arch. 15—History of Arch.....     | 2  | Arch. 16—History of Arch.....     | 2  |
| Arch. 25—Freehand Drawing.....    | 2  | Arch. 26—Freehand Drawing.....    | 2  |
| Arch. 35—Design.....              | 5  | Arch. 36—Design.....              | 5  |
| Arch. 45—Graphic Statics.....     | 3  | Arch. 46—Graphic Statics.....     | 3  |
| Arch. 55—Building Sanitation..... | 1  | E. E. 9—Building Illumination.... | 1  |
| Arch. 65—Theory of Arch.....      | 1  | Arch. 66—Theory of Arch.....      | 1  |
| Total .....                       | 18 | Total .....                       | 18 |

## FOURTH YEAR

|                                  |    |                                 |    |
|----------------------------------|----|---------------------------------|----|
| Arch. 27—Freehand Drawing.....   | 2  | Arch. 28—Freehand Drawing.....  | 2  |
| Arch. 37—Design.....             | 7  | Arch. 38—Adv'd Design or Thesis | 7  |
| Arch. 67—Theory of Form & Color  | 2  | Arch. 60—Estimating.....        | 1  |
| M. E. 38—Heating & Ventilation.. | 2  | Arch. 68—Specifications.....    | 3  |
| L. A. & S. Option.....           | 3  | L. A. & S. Option.....          | 3  |
| Econ. 2—Prin. of Econ.....       | 2  |                                 |    |
| Total .....                      | 18 | Total .....                     | 16 |

<sup>1</sup>Semester hours. For definition see page 307.<sup>2</sup>The numbers refer to courses in the Description of Courses, page 307.<sup>3</sup>Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.



**Course Required for Degree of B. S. in Architectural Engineering****FIRST YEAR**

| FIRST SEMESTER                                 |                    | SECOND SEMESTER                               |                    |
|------------------------------------------------|--------------------|-----------------------------------------------|--------------------|
|                                                | S. H. <sup>1</sup> |                                               | S. H. <sup>1</sup> |
| G. E. D. 1 <sup>2</sup> —Gen. Eng. Drawing.... | 4                  | G. E. D. 2 <sup>2</sup> —Descriptive Geometry | 4                  |
| Math. 4—Trigonometry.....                      | 2                  | Math. 6—Analytical Geometry.....              | 5                  |
| Math. 2—Advanced Algebra.....                  | 3                  | French 1, or German 3 or 5 or                 |                    |
| French 1, or German 1 or 4, or                 |                    | 6 or French 2, or English 1, or               |                    |
| English 1, or Spanish 1.....                   | 4                  | Spanish 1.....                                | 4                  |
| Arch. 20—Arch. and Freehand                    |                    | Arch. 8—Arch. Drawing, or M.                  |                    |
| Drawing, or M. E. 41.....                      | 3                  | E. 41.....                                    | 3                  |
| Mil. 2—Military Drill.....                     | 1                  | Mil. 2—Military Drill.....                    | 1                  |
| Phys. Tr. 1—Gymnasium.....                     | 1                  | Mil. 1—Drill Regulations.....                 | 1                  |
|                                                |                    | Phys. Tr. 1—Gymnasium.....                    | 1                  |
| Total .....                                    | 18                 | Total .....                                   | 19                 |

**SECOND YEAR**

|                                    |    |                                  |    |
|------------------------------------|----|----------------------------------|----|
| Math. 7—Differential Calculus..... | 5  | Math. 9—Integral Calculus.....   | 3  |
| Phys. 1—Physics Lectures.....      | 3  | Phys. 1—Physics Lectures.....    | 2  |
| Phys. 3—Physics Laboratory.....    | 2  | Phys. 3—Physics Laboratory.....  | 2  |
| Rhet. 1—Rhetoric and Themes.....   | 3  | Rhet. 1—Rhetoric and Themes..... | 3  |
| Arch. 43—Working Drawings.....     | 3  | T. & A. M. 7—Analyt. Mech.....   | 3  |
| Arch. 4—Building Sanitation.....   | 2  | Arch. 44—Working Drawings.....   | 3  |
| Mil. 2—Military Drill.....         | 1  | Arch. 15a—Design.....            | 3  |
|                                    |    | Mil. 2—Military Drill.....       | 1  |
| Total .....                        | 19 | Total .....                      | 20 |

**THIRD YEAR**

|                                              |    |                                   |    |
|----------------------------------------------|----|-----------------------------------|----|
| T. & A. M. 6—Engin. Materials..              | 1  | T. & A. M. 10—Hydraulics.....     | 3  |
| T. & A. M. 8—Analyt. Mech.....               | 2½ | Arch. 5—Graphic Statics & Roofs.. | 4  |
| T. & A. M. 9—Res. of Matls.....              | 3½ | Arch. 6—History of Arch.....      | 4  |
| Arch. 6—History of Arch.....                 | 4  | Arch. 10—Estimating.....          | 1  |
| Chem. 1b or 1a <sup>3</sup> —Inorganic Chem- |    | Arch. 11—Arch. Seminar.....       | 1  |
| istry.....                                   | 4  | M. E. 11—Steam Engines & Boil-    |    |
| Arch. 11—Arch. Seminar.....                  | 1  | ers .....                         | 3  |
| Econ. 2—Principles of Econ.....              | 2  | C. E. 10—Surveying.....           | 2  |
| Total .....                                  | 18 | Total .....                       | 18 |

**FOURTH YEAR**

|                                   |    |                                   |    |
|-----------------------------------|----|-----------------------------------|----|
| Arch. 19—Arch. Engineering.....   | 3  | Arch. 19—Arch. Engineering.....   | 3  |
| Arch. 30—Thesis or approved elec- |    | Arch. 30—Thesis or approved elec- |    |
| tive .....                        | 1  | tive .....                        | 3  |
| Arch. 34a—Arch. Eng. Seminar..... | 1  | Arch. 68—Specifications.....      | 3  |
| C. E. 12—Bridge Analysis.....     | 2  | C. E. 6c—Masonry & Reinf. Con.    |    |
| C. E. 13—Bridge Details.....      | 2  | Design .....                      | 2  |
| C. E. 24—Metal Structures.....    | 1  | C. E. 14a—Bridge Design.....      | 2  |
| L. A. & S. Option.....            | 1  | E. E. 9—Electric Lighting.....    | 1  |
| M. E. 32—Mech. Eng. Laboratory    | 1  | L. A. & S. Option.....            | 1  |
| M. E. 38—Heating & Ventila-       |    |                                   |    |
| tion .....                        | 3  |                                   |    |
| Total .....                       | 15 | Total .....                       | 15 |

<sup>1</sup>Semester hours. For definition see page 307.<sup>2</sup>The numbers refer to courses in the Description of Courses, page 307.<sup>3</sup>Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## Course Required for the Degree of B. S. in Civil Engineering

## FIRST YEAR

## FIRST SEMESTER

|                                                            | S. H. <sup>1</sup> |
|------------------------------------------------------------|--------------------|
| G. E. D. 1 <sup>2</sup> —Gen. Eng. Drwg.....               | 4                  |
| Math. 4—Trigonometry.....                                  | 2                  |
| Math. 2—Adv. Algebra.....                                  | 3                  |
| French 1, or German 1 or 4 or English 1, or Spanish 1..... | 4                  |
| M. E. 41—Shop Practise.....                                | 3                  |
| Mil. 2—Military Drill.....                                 | 1                  |
| Phys. Tr. 1—Gymnasium.....                                 | 1                  |
| Total .....                                                | 18                 |

## SECOND SEMESTER

|                                                                             | S. H. <sup>1</sup> |
|-----------------------------------------------------------------------------|--------------------|
| G. E. D. 2—Descr. Geometry.....                                             | 4                  |
| Math. 6—Analyt. Geometry.....                                               | 5                  |
| French 1, or German 3 or 5, or English 2, or Rhetoric 11, or Spanish 1..... | 4                  |
| M. E. 41—Shop Practise.....                                                 | 3                  |
| Mil. 2—Military Drill.....                                                  | 1                  |
| Mil. 1—Drill Regulations.....                                               | 1                  |
| Phys. Tr. 1—Gymnasium.....                                                  | 1                  |
| Total .....                                                                 | 19                 |

## SECOND YEAR

|                                  |    |
|----------------------------------|----|
| Math. 7—Diff. Calculus.....      | 5  |
| Phys. 1—Physics Lectures.....    | 3  |
| Phys. 3—Physics Laboratory.....  | 2  |
| Rhet. 1—Rhetoric and Themes..... | 3  |
| C. E. 21—Surveying.....          | 5  |
| Mil. 2—Military Drill.....       | 1  |
| Total .....                      | 19 |

|                                  |    |
|----------------------------------|----|
| Math. 9—Integral Calculus.....   | 3  |
| Phys. 1—Physics Lectures.....    | 2  |
| Phys. 3—Physics Laboratory.....  | 2  |
| Rhet. 1—Rhetoric and Themes..... | 3  |
| T. & A. M. 7—Analyt. Mech.....   | 3  |
| C. E. 22—Top. Surveying.....     | 4  |
| C. E. 23—Railroad Curves.....    | 1  |
| Mil. 2—Military Drill.....       | 1  |
| Total .....                      | 19 |

## THIRD YEAR

|                                                       |    |
|-------------------------------------------------------|----|
| T. & A. M. 6—Eng. Matls.....                          | 1  |
| T. & A. M. 8—Analyt. Mech.....                        | 2½ |
| T. & A. M. 9—Res. of Materials..                      | 3½ |
| C. E. 4—Railroad Surveying.....                       | 5  |
| Chem. <sup>3</sup> 1b or 1a—Inorganic Chemistry ..... | 4  |
| Total .....                                           | 16 |

|                                 |    |
|---------------------------------|----|
| T. & A. M. 10—Hydraulics.....   | 3  |
| C. E. 1—Road Engineering.....   | 2  |
| C. E. 20—Graphic Statics.....   | 2  |
| Astron. 3 & 6, or Geol. 13..... | 5  |
| M. E. 11—Steam Eng. & Boilers.. | 2  |
| Econ. 2—Prin. of Economics..... | 2  |
| Total .....                     | 17 |

## FOURTH YEAR

|                                            |    |
|--------------------------------------------|----|
| C. E. 5r—Masonry Construction....          | 4  |
| C. E. 5l—Cement Lab. Practise....          | 1  |
| C. E. 12—Bridge Analysis.....              | 2  |
| C. E. 13—Bridge Details.....               | 3  |
| C. E. 6a—Reinf. Concrete.....              | 1  |
| C. E. 24—Metal Structures.....             | 1  |
| C. E. 30—Thesis or approved elective ..... | 1  |
| M. & S. E. 2—Water Supply Eng.             | 4  |
| Total .....                                | 17 |

|                                                |    |
|------------------------------------------------|----|
| C. E. 6—Masonry & Reinf. Concrete Design ..... | 2  |
| C. E. 14—Bridge Design.....                    | 5  |
| C. E. 15—Adv. Bridge Anal.....                 | 2  |
| C. E. 16—Eng. Cont. & Spec.....                | 2  |
| C. E. 25—Seminar.....                          | 1  |
| C. E. 30—Thesis or approved elective .....     | 2  |
| M. & S. E. 3—Sewerage.....                     | 3  |
| Total .....                                    | 17 |

<sup>1</sup>Semester hours. For definition see page 307.<sup>2</sup>The numbers refer to courses in the Description of Courses, page 307.<sup>3</sup>Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a; those who have received credit for Chemistry 1a will register in Electrical Engineering 3 and 22.



**Course Required for the Degree of B. S. in Electrical Engineering****FIRST YEAR**

| FIRST SEMESTER                                                 |                    | SECOND SEMESTER                                                                        |                    |
|----------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------|--------------------|
|                                                                | S. H. <sup>1</sup> |                                                                                        | S. H. <sup>1</sup> |
| G. E. D. 1 <sup>2</sup> —Gen. Eng. Drwg.....                   | 4                  | G. E. D. 2—Descr. Geometry.....                                                        | 4                  |
| Math. 4—Trigonometry.....                                      | 2                  | Math. 6—Analyt. Geometry.....                                                          | 5                  |
| Math. 2—Adv. Algebra.....                                      | 3                  | French 1, or German 3 or 5 or 6,<br>or English 2, or Rhetoric 11, or<br>Spanish 1..... | 4                  |
| French 1, or German 1 or 4, or<br>English 1, or Spanish 1..... | 4                  | M. E. 41—Shop Practise.....                                                            | 3                  |
| M. E. 41—Shop Practise.....                                    | 3                  | Mil. 2—Military Drill.....                                                             | 1                  |
| Mil. 2—Military Drill.....                                     | 1                  | Mil. 1—Drill Regulations.....                                                          | 1                  |
| Phys. Tr. 1—Gymnasium.....                                     | 1                  | Phys. Tr. 1—Gymnasium.....                                                             | 1                  |
| Total .....                                                    | 18                 | Total .....                                                                            | 19                 |

**SECOND YEAR**

|                                  |    |                                             |    |
|----------------------------------|----|---------------------------------------------|----|
| Math. 7—Diff. Calculus.....      | 5  | Math. 9—Integral Calculus.....              | 3  |
| Phys. 1—Physics Lectures.....    | 3  | Phys. 1—Physics Lectures.....               | 2  |
| Phys. 3—Physics Laboratory.....  | 2  | Phys. 3—Physics Laboratory.....             | 2  |
| Rhet. 1—Rhetoric and Themes..... | 3  | Rhet. 1—Rhetoric and Themes.....            | 3  |
| M. E. 24—Mach. Design & Mech. 3  | 3  | T. & A. M. 7—Analyt. Mech.....              | 3  |
| M. E. 42—Machine Shop.....       | 2  | Chem. <sup>3</sup> 1b or 1a—Inorg. Chem.... | 4  |
| Mil. 2—Military Drill.....       | 1  | Mil. 2—Military Drill.....                  | 1  |
| Total .....                      | 19 | Total .....                                 | 18 |

**THIRD YEAR**

|                                  |    |                                 |    |
|----------------------------------|----|---------------------------------|----|
| T. & A. M. 6—Eng. Matrls.....    | 1  | T. & A. M. 10—Hydraulics.....   | 3  |
| T. & A. M. 8—Analyt. Mech.....   | 2½ | E. E. 5—Alt. Currents.....      | 4  |
| T. & A. M. 9—Res. of Materials.. | 3½ | E. E. 23—Elec. Eng. Lab.....    | 2  |
| E. E. 3—Dynamo-Elec. Mach.....   | 3  | Phys. 4—Elec. & Magn. Meas..... | 2  |
| E. E. 22—Electr. Eng. Lab.....   | 2  | M. E. 13—Mech. Eng. Lab.....    | 3  |
| Phys. 4—Elec. & Magn. Meas....   | 2  | Math. 9a—Integral Calculus..... | 2  |
| Chem. 4—Inorg. Chem. & Anal... 4 |    |                                 |    |
| Total .....                      | 18 | Total .....                     | 16 |

**FOURTH YEAR**

|                                  |    |                                                 |    |
|----------------------------------|----|-------------------------------------------------|----|
| E. E. 13—Seminar.....            | 1  | E. E. 13—Seminar.....                           | 1  |
| E. E. 14—Adv. Alt. Currents..... | 4  | E. E. 17—Adv. Alt. Currents.....                | 4  |
| E. E. 24—Elec. Eng. Lab.....     | 2  | E. E. 27—Elec. Eng. Lab.....                    | 2  |
| E. E. 32—Electrical Design.....  | 2  | E. E. 34—Elec. Des. & Power Pl. 3               |    |
| M. E. 15—Thermodynamics.....     | 3  | E. E. 35—Thesis or approved elec-<br>tive ..... | 3  |
| Econ. 2—Prin. of Economics.....  | 2  | Econ. 16—Econ. Prob.....                        | 2  |
| M. E. 23—Steam Eng.....          | 2  | C. E. 10—Surveying.....                         | 2  |
| Total .....                      | 16 | Total .....                                     | 17 |

<sup>1</sup>Semester hours. For definition see page 307.<sup>2</sup>The numbers refer to courses in the Description of Courses, page 307.<sup>3</sup>Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## Course Required for the Degree of B. S. in Mechanical Engineering

## FIRST YEAR

| FIRST SEMESTER                               |                    | SECOND SEMESTER                                                                       |                    |
|----------------------------------------------|--------------------|---------------------------------------------------------------------------------------|--------------------|
|                                              | S. H. <sup>1</sup> |                                                                                       | S. H. <sup>1</sup> |
| G. E. D. 1 <sup>2</sup> —Gen. Eng. Drawing.. | 4                  | G. E. D. 2—Descr. Geometry.....                                                       | 4                  |
| Math. 4—Trigonometry.....                    | 2                  | Math. 6—Analyt. Geometry.....                                                         | 5                  |
| Math. 2—Adv. Algebra.....                    | 3                  | French 1 or German 3 or 5 or 6,<br>or English 2, or Rhetoric 11, or<br>Spanish 1..... | 4                  |
| English 1, or Spanish 1.....                 | 4                  | M. E. 41—Shop Practise.....                                                           | 3                  |
| M. E. 41—Shop Practise.....                  | 3                  | Mil. 2—Military Drill.....                                                            | 1                  |
| Mil. 2—Military Drill.....                   | 1                  | Mil. 1—Drill Regulations.....                                                         | 1                  |
| Phys. Tr. 1—Gymnasium.....                   | 1                  | Phys. Tr. 1—Gymnasium.....                                                            | 1                  |
| Total .....                                  | 18                 | Total .....                                                                           | 19                 |

## SECOND YEAR

|                                  |    |                                  |    |
|----------------------------------|----|----------------------------------|----|
| Math. 7—Diff. Calculus.....      | 5  | Math. 9—Integral Calculus.....   | 3  |
| Phys. 1—Physics Lectures.....    | 3  | Phys. 1—Physics Lectures.....    | 2  |
| Phys. 3—Physics Laboratory.....  | 2  | Phys. 3—Physics Laboratory.....  | 2  |
| Rhet. 1—Rhetoric and Themes..... | 3  | Rhet. 1—Rhetoric and Themes..... | 3  |
| M. E. 42—Machine Shop.....       | 3  | T. & A. M. 7—Analyt. Mech.....   | 3  |
| M. E. 4—Machine Design.....      | 2  | M. E. 42—Machine Shop.....       | 2  |
| Mil. 2—Military Drill.....       | 1  | M. E. 16—Steam Eng.....          | 3  |
| Total .....                      | 19 | Mil. 2—Military Drill.....       | 1  |
|                                  |    | Total .....                      | 19 |

## THIRD YEAR

|                                              |                |                                 |    |
|----------------------------------------------|----------------|---------------------------------|----|
| T. & A. M. 6—Eng. Materials.....             | 1              | M. E. 7—Thermodynamics.....     | 3  |
| T. & A. M. 8—Analyt. Mech.....               | 2 <sup>3</sup> | M. E. 9—Mach. Design.....       | 3  |
| T. & A. M. 9—Res. of Materials               | 3 <sup>3</sup> | M. E. 29—Seminar.....           | 1  |
| M. E. 3—Power Meas.....                      | 2              | T. & A. M. 11—Analyt. Mechanics | 3  |
| M. E. 5—Mechanism.....                       | 3              | E. E. 16—Dynamo Mach.....       | 4  |
| Math. 9a—Integral Calculus.....              | 2              | Chem. 16—Eng. Chemistry.....    | 3  |
| Chem. <sup>3</sup> 1a or 1b—Inorg. Chem..... | 4              | Total .....                     | 17 |
| Total .....                                  | 18             |                                 |    |

## FOURTH YEAR

|                                 |    |                                                 |    |
|---------------------------------|----|-------------------------------------------------|----|
| M. E. 6—Heat Engines.....       | 2  | M. E. 6—Heat Engines.....                       | 2  |
| M. E. 8—Mech. of Machinery..... | 3  | M. E. 14—Des. of Pow. Plants.....               | 2  |
| M. E. 9—Mach. Design.....       | 3  | M. E. 33—Thesis or approved elec-<br>tive ..... | 3  |
| M. E. 12—Mech. Lab.....         | 3  | M. E. 39—Heat & Ventilation.....                | 3  |
| M. E. 19—Seminar.....           | 1  | R. E. 11—R. Eng. or C. E. 10—<br>Sur. ....      | 2  |
| E. E. 6—Alt. Currents.....      | 2  | Econ. 16—Econ. Problems.....                    | 2  |
| Econ. 2—Prin. of Economics..... | 2  | Elective .....                                  | 2  |
| Total .....                     | 16 | Total .....                                     | 16 |

<sup>1</sup>Semester hours. For definition see page 307.<sup>2</sup>The numbers refer to courses in the Description of Courses, page 307.<sup>3</sup>Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.



**Course Required for the Degree of B. S. in Mining Engineering****FIRST YEAR**

| FIRST SEMESTER                                                 |                    | SECOND SEMESTER                                                                        |                    |
|----------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------|--------------------|
|                                                                | S. H. <sup>1</sup> |                                                                                        | S. H. <sup>1</sup> |
| G. E. D. 1 <sup>2</sup> —Gen. Eng. Drawing..                   | 4                  | G. E. D. 2—Descr. Geometry.....                                                        | 4                  |
| Math. 4—Trigonometry.....                                      | 2                  | Math. 6—Analyt. Geometry.....                                                          | 5                  |
| Math. 2—Adv. Algebra.....                                      | 3                  | French 1, or German 3 or 5 or 6,<br>or English 2, or Rhetoric 11, or<br>Spanish 1..... | 4                  |
| French 1, or German 1 or 4, or<br>English 1, or Spanish 1..... | 4                  | M. E. 41—Shop Practise.....                                                            | 3                  |
| M. E. 41—Shop Practise.....                                    | 3                  | Mil. 2—Military Drill.....                                                             | 1                  |
| Mil. 2—Military Drill.....                                     | 1                  | Mil. 1—Drill Regulations.....                                                          | 1                  |
| Phys. Tr. 1—Gymnasium.....                                     | 1                  | Phys. Tr. 1—Gymnasium.....                                                             | 1                  |
| Total .....                                                    | 18                 | Total .....                                                                            | 19                 |

**SECOND YEAR**

|                                              |    |                                  |    |
|----------------------------------------------|----|----------------------------------|----|
| Math. 8a—Diff. & Int. Calculus....           | 5  | Phys. 1—Physics Lectures.....    | 2  |
| Phys. 1—Physics Lectures.....                | 3  | Phys. 3—Physics Laboratory.....  | 2  |
| Phys. 3—Physics Laboratory.....              | 2  | Rhet. 1—Rhetoric and Themes..... | 3  |
| Rhet. 1—Rhetoric and Themes.....             | 3  | T. & A. M. 7—Analyt. Mech.....   | 3  |
| Min. 1—Mining Prin.....                      | 1  | Min. 2—Earth & Rock Excavation.. | 3  |
| Chem. <sup>3</sup> 1b or 1a—Inorg. Chem..... | 4  | Chem. 2 & 3—Inorg. Chem. & Anal  | 5  |
| Mil. 2—Military Drill.....                   | 1  | Mil. 2—Military Drill.....       | 1  |
| Total .....                                  | 19 | Total .....                      | 19 |

**THIRD YEAR**

|                                |    |                                |    |
|--------------------------------|----|--------------------------------|----|
| T. & A. M. 8—Analyt. Mech..... | 2½ | Min. 4—Mine Surveying.....     | 4  |
| T. & A. M. 9—Res. of Materials | 3½ | Min. 5—Mine Vent.....          | 3  |
| Min. 3—Mining Methods.....     | 2  | C. E. 20—Graphic Statics.....  | 2  |
| C. E. 21—Surveying.....        | 5  | M. E. 35—Steam Engin.....      | 3  |
| Chem. 5a.....                  | 5  | Geology 13—Engin. Geology..... | 5  |
| Total .....                    | 18 | Total .....                    | 17 |

**FOURTH YEAR**

|                                  |    |                                                 |    |
|----------------------------------|----|-------------------------------------------------|----|
| Min. 6—Mech. Eng. of Mines.....  | 3  | Min. 7—Mine Admin. Organization<br>and Law..... | 2  |
| Min. 9—Prep. of Coal & Ores..... | 3  | Min. 8—Mine Plans.....                          | 2  |
| Min. 12—Mine Design.....         | 3  | Min. 10—Min. Lab.....                           | 2  |
| Chem. 7—Metallurgy.....          | 3  | Min. 11—Thesis or approved elec-<br>tive .....  | 3  |
| Geol. 21—Geol. of Coal, or.....  | 2  | Geology 2.....                                  | 3  |
| Chem. 69—Assaying (2 hrs.).....  | 0  | E. E. 16—Dynamo Elec. Mach.....                 | 4  |
| Chem. 65—Tech. Gas & Fuel Anal.  | 2  | Total .....                                     | 16 |
| Total .....                      | 16 | Total .....                                     | 16 |

<sup>1</sup>Semester hours. For definition see page 307.<sup>2</sup>The numbers refer to courses in the Description of Courses, page 307.<sup>3</sup>Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

Course Required for the Degree of B. S. in Municipal and Sanitary Engineering

FIRST YEAR

| FIRST SEMESTER                                                 |                    | SECOND SEMESTER                                                                        |                    |
|----------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------|--------------------|
|                                                                | S. H. <sup>1</sup> |                                                                                        | S. H. <sup>1</sup> |
| G. E. D. 1 <sup>2</sup> —Gen. Eng. Drawing..                   | 4                  | G. E. D. 2—Descr. Geometry.....                                                        | 4                  |
| Math. 4—Trigonometry.....                                      | 2                  | Math. 6—Analyt. Geometry.....                                                          | 5                  |
| Math. 2—Adv. Algebra.....                                      | 3                  | French 1, or German 3 or 5 or 6,<br>or English 2, or Rhetoric 11,<br>or Spanish 1..... | 4                  |
| French 1, or German 1 or 4, or<br>English 1, or Spanish 1..... | 4                  | M. E. 41—Shop Practise.....                                                            | 3                  |
| M. E. 41—Shop Practise.....                                    | 3                  | Mil. 2—Military Drill.....                                                             | 1                  |
| Mil. 2—Military Drill.....                                     | 1                  | Mil. 1—Drill Regulations.....                                                          | 1                  |
| Phys. Tr. 1—Gymnasium.....                                     | 1                  | Phys. Tr. 1—Gymnasium.....                                                             | 1                  |
| Total .....                                                    | 18                 | Total .....                                                                            | 19                 |

SECOND YEAR

|                                  |    |                                  |    |
|----------------------------------|----|----------------------------------|----|
| Math. 7—Diff. Calculus.....      | 5  | Math. 9—Integral Calculus.....   | 3  |
| Phys. 1—Physics Lectures.....    | 3  | Phys. 1—Physics Lectures.....    | 2  |
| Phys. 3—Physics Laboratory.....  | 2  | Phys. 3—Physics Laboratory.....  | 2  |
| Rhet. 1—Rhetoric and Themes..... | 3  | Rhet. 1—Rhetoric and Themes..... | 3  |
| C. E. 21—Surveying.....          | 5  | T. & A. M. 7—Analyt. Mech.....   | 3  |
| Mil. 2—Military Drill.....       | 1  | C. E. 22—Top. Surveying.....     | 4  |
| Total .....                      | 19 | C. E. 23—Railroad Curves.....    | 1  |
|                                  |    | Mil. 2—Military Drill.....       | 1  |
|                                  |    | Total .....                      | 19 |

THIRD YEAR

|                                                            |    |                                                       |    |
|------------------------------------------------------------|----|-------------------------------------------------------|----|
| T. & A. M. 6—Eng. Materials....                            | 1  | T. & A. M. 10—Hydraulics.....                         | 3  |
| T. & A. M. 8—Analyt. Mech.....                             | 2½ | C. E. 1—Road Engineering.....                         | 2  |
| T. & A. M. 9—Res. of Materials..                           | 3½ | C. E. 20—Graphic Statics.....                         | 2  |
| Botany 6—Bacteriology.....                                 | 2  | M. E. 11—Steam Eng. & Boilers..                       | 3  |
| C. E. 4a—R. R. Surveying.....                              | 3  | Chemistry 2, 3 and 10b—Qual. &<br>Water Analysis..... | 5  |
| Chem. <sup>3</sup> 1b or 1a—Inorganic Chem-<br>istry ..... | 4  | E. E. 1—Elec. Eng.....                                | 2  |
| Total .....                                                | 16 | Total .....                                           | 17 |

FOURTH YEAR

|                                                                    |    |                                                                    |    |
|--------------------------------------------------------------------|----|--------------------------------------------------------------------|----|
| M. & S. E. 2—Water Supply Eng.                                     | 4  | M. & S. E. 3—Sewerage.....                                         | 3  |
| M. & S. E. 6a—Water Pur., Sew-<br>age Disp. & Gen. Sanitation..... | 3  | M. & S. E. 6b—Water Pur., Sew-<br>age Disp. & Gen. Sanitation..... | 2  |
| C. E. 5—Masonry Constr.....                                        | 5  | M. & S. E. 9—Hydraul. Des. & Con.                                  | 2  |
| C. E. 12—Bridge Analysis.....                                      | 2  | M. & S. E. 30—Thesis or approved<br>elective .....                 | 2  |
| C. E. 13a—Bridge Details.....                                      | 2  | C. E. 6—Mas. & Reinf. Con. Design                                  | 2  |
| E. E. 28—Elec. Eng.....                                            | 1  | C. E. 16—Eng. Con. & Spec.....                                     | 2  |
| Total .....                                                        | 17 | M. E. 13—Mech. Eng. Lab.....                                       | 2  |
|                                                                    |    | Econ. 2—Prin. of Economics.....                                    | 2  |
|                                                                    |    | Total .....                                                        | 17 |

<sup>1</sup>Semester hours. For definition see page 307.

<sup>2</sup>The numbers refer to courses in the Description of Courses, page 307.

<sup>3</sup>Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.



## Course Required for the Degree of B. S. in Railway Civil Engineering<sup>1</sup>

### FIRST YEAR

| FIRST SEMESTER                                                      | S. H. <sup>2</sup> | SECOND SEMESTER                                                                        | S. H. <sup>2</sup> |
|---------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------|--------------------|
| G. E. D. 1 <sup>3</sup> —Gen. Eng. Drawing....                      | 4                  | G. E. D. 2—Descr. Geometry.....                                                        | 4                  |
| Math. 4—Trigonometry.....                                           | 2                  | Math. 6—Analyt. Geometry.....                                                          | 5                  |
| Math. 2—Adv. Algebra.....                                           | 3                  | French 1, or German 3 or 5 or 6,<br>or English 2, or Rhetoric 11, or<br>Spanish 1..... | 4                  |
| French 1, or German 1 or 3 or 4,<br>or English 1, or Spanish 1..... | 4                  | M. E. 41—Shop Practise.....                                                            | 3                  |
| M. E. 41—Shop Practise.....                                         | 3                  | Mil. 2—Military Drill.....                                                             | 1                  |
| Mil. 2—Military Drill.....                                          | 1                  | Mil. 1—Drill Regulations.....                                                          | 1                  |
| Phys. Tr. 1—Gymnasium.....                                          | 1                  | Phys. Tr. 1—Gymnasium.....                                                             | 1                  |
| Total .....                                                         | 18                 | Total .....                                                                            | 19                 |

### SECOND YEAR

|                                  |    |                                  |    |
|----------------------------------|----|----------------------------------|----|
| Math. 7—Diff. Calculus.....      | 5  | Math. 9—Integral Calculus.....   | 3  |
| Phys. 1—Physics Lectures.....    | 3  | Phys. 1—Physics Lectures.....    | 2  |
| Phys. 3—Physics Laboratory.....  | 2  | Phys. 3—Physics Laboratory.....  | 2  |
| Rhet. 1—Rhetoric and Themes..... | 3  | Rhet. 1—Rhetoric and Themes..... | 3  |
| C. E. 21—Surveying.....          | 5  | T. & A. M. 7—Analyt. Mech.....   | 3  |
| Mil. 2—Military Drill.....       | 1  | C. E. 22—Top. Surveying.....     | 4  |
|                                  |    | C. E. 23—R. R. Curves.....       | 1  |
|                                  |    | Mil. 2—Military Drill.....       | 1  |
| Total .....                      | 19 | Total .....                      | 19 |

### THIRD YEAR

|                                           |    |                                 |    |
|-------------------------------------------|----|---------------------------------|----|
| T. & A. M. 6—Eng. Materials....           | 1  | T. & A. M. 10—Hydraulics.....   | 3  |
| T. & A. M. 8—Analyt. Mech.....            | 2½ | R. E. 31—Ry. Yards & Terminals  | 3  |
| T. & A. M. 9—Res. of Materials..          | 3½ | C. E. 20—Graphic Statics.....   | 2  |
| C. E. 4—R. R. Surveying.....              | 5  | M. E. 11—Steam Eng. & Boilers.. | 3  |
| Chemistry <sup>4</sup> 1b or 1a—Inorganic |    | Astron. 3 & 6, or Geol. 13..... | 5  |
| Chemistry .....                           | 4  | Econ. 2—Prin. of Economics..... | 2  |
| Total .....                               | 16 | Total .....                     | 18 |

### FOURTH YEAR

|                                   |    |                                                 |    |
|-----------------------------------|----|-------------------------------------------------|----|
| R. E. 33—Econ. Theory of Ry. Loc. | 4  | R. E. 30—Thesis or approved elec-<br>tive ..... | 3  |
| R. E. 35—Signal Eng.....          | 1  | R. E. 32—Ry. Structures.....                    | 2  |
| Econ. 41—Ry. Hist. & Organization | 3  | R. E. 50—Seminar.....                           | 1  |
| C. E. 5—Masonry Con.....          | 5  | Econ. 42—Ry. Admin.....                         | 3  |
| C. E. 12—Bridge Analysis.....     | 2  | C. E. 6—Mas. & Reinf. Con. Des.                 | 2  |
| C. E. 18—Tunneling.....           | 1  | C. E. 14a—Bridge Design.....                    | 2  |
| C. E. 24—Metal Structures.....    | 1  | C. E. 16—Eng. Con. & Spec.....                  | 2  |
| R. E. 50—Seminar.....             | 1  |                                                 |    |
| Total .....                       | 18 | Total .....                                     | 15 |

<sup>1</sup>Differs from the course in civil engineering only after the first semester of the third year.

<sup>2</sup>Semester hours. For definition see page 307.

<sup>3</sup>The numbers refer to the courses in the Description of Courses, page 307.

<sup>4</sup>Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

# Course Required for the Degree of B. S. in Railway Electrical Engineering<sup>1</sup>

## FIRST YEAR

| FIRST SEMESTER                                                 |                    | SECOND SEMESTER                                                                        |                    |
|----------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------|--------------------|
|                                                                | S. H. <sup>2</sup> |                                                                                        | S. H. <sup>2</sup> |
| G. E. D. 1 <sup>3</sup> —Gen. Eng. Drawing..                   | 4                  | G. E. D. 2—Descr. Geometry.....                                                        | 4                  |
| Math. 4—Trigonometry.....                                      | 2                  | Math. 6—Analyt. Geometry.....                                                          | 5                  |
| Math. 2—Adv. Algebra.....                                      | 3                  | French 1, or German 3 or 5 or 6,<br>or English 2, or Rhetoric 11, or<br>Spanish 1..... | 4                  |
| French 1, or German 1 or 4, or<br>English 1, or Spanish 1..... | 4                  | M. E. 41—Shop Practise.....                                                            | 3                  |
| M. E. 41—Shop Practise.....                                    | 3                  | Mil. 2—Military Drill.....                                                             | 1                  |
| Mil. 2—Military Drill.....                                     | 1                  | Mil. 1—Drill Regulations.....                                                          | 1                  |
| Phys. Tr. 1—Gymnasium.....                                     | 1                  | Phys. Tr. 1—Gymnasium.....                                                             | 1                  |
| Total .....                                                    | 18                 | Total .....                                                                            | 19                 |

## SECOND YEAR

|                                  |    |                                  |    |
|----------------------------------|----|----------------------------------|----|
| Math. 7—Diff. Calculus.....      | 5  | Math. 9—Integral Calculus.....   | 3  |
| Phys. 1—Physics Lectures.....    | 3  | Phys. 1—Physics Lectures.....    | 2  |
| Phys. 3—Physics Laboratory.....  | 2  | Phys. 3—Physics Laboratory.....  | 2  |
| Rhet. 1—Rhetoric and Themes..... | 3  | Rhet. 1—Rhetoric and Themes..... | 3  |
| M. E. 42—Shop Practise.....      | 2  | T. & A. M. 7—Analyt. Mech.....   | 3  |
| M. E. 24—Mach. Design & Mech. 3  | 3  | Chem. 1—Inorganic Chemistry..... | 4  |
| Mil. 2—Military Drill.....       | 1  | Mil. 2—Military Drill.....       | 1  |
| Total .....                      | 19 | Total .....                      | 18 |

## THIRD YEAR

|                                  |    |                                 |    |
|----------------------------------|----|---------------------------------|----|
| T. & A. M. 6—Eng. Materials....  | 1  | T. & A. M. 10—Hydraulics.....   | 3  |
| T. & A. M. 8—Analyt. Mech.....   | 2½ | E. E. 5—Alt. Currents.....      | 4  |
| T. & A. M. 9—Res. of Materials.. | 3½ | E. E. 23—Elec. Eng. Lab.....    | 2  |
| E. E. 3—Dynamo-Elec. Mach.....   | 3  | Phys. 4—Elec. & Mag. Meas.....  | 2  |
| E. E. 22—Elec. Eng. Lab.....     | 2  | C. E. 10—Surveying.....         | 2  |
| Phys. 4—Elec. & Mag. Meas.....   | 2  | M. E. 13—Mech. Eng. Lab.....    | 3  |
| Chem. 2 & 3—Inorg. Chem. & Anal. | 4  | Math. 9a—Integral Calculus..... | 2  |
| Total .....                      | 18 | Total .....                     | 18 |

## FOURTH YEAR

|                                  |    |                                                 |    |
|----------------------------------|----|-------------------------------------------------|----|
| R. E. 10—Seminar.....            | 1  | R. E. 10—Seminar.....                           | 1  |
| R. E. 64—Elec. Ry. Practise..... | 3  | R. E. 63—Rv. Lab. & Road Tests 3                | 3  |
| E. E. 14—Adv. Alt. Currents..... | 4  | R. E. 65—Elec. Ry. Practise.....                | 3  |
| E. E. 24—Elec. Eng. Lab.....     | 2  | E. E. 34—Elec. Design & Power<br>Plants .....   | 3  |
| M. E. 15—Thermodynamics.....     | 3  | Econ. 16—Econ. Problems.....                    | 2  |
| Econ. 2—Prin. of Economics.....  | 2  | R. E. 30—Thesis or approved elec-<br>tive ..... | 3  |
| M. E. 23—Steam Eng.....          | 2  | Total .....                                     | 15 |
| Total .....                      | 17 | Total .....                                     | 15 |

<sup>1</sup>Differs from the course in electrical engineering in the fourth year only.

<sup>2</sup>Semester hours. For definition see page 307.

<sup>3</sup>The numbers refer to the courses in the Description of Courses, page 307.



## Course Required for the Degree of B. S. in Railway Mechanical Engineering<sup>1</sup>

### FIRST YEAR

| FIRST SEMESTER                                                 | S. H. <sup>2</sup> | SECOND SEMESTER                                                                        | S. H. <sup>2</sup> |
|----------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------|--------------------|
| G. E. D. 1 <sup>3</sup> —Gen. Eng. Drawing....                 | 4                  | G. E. D. 2—Descr. Geometry ....                                                        | 4                  |
| Math. 4—Trigonometry.....                                      | 2                  | Math. 6—Analyt. Geometry.....                                                          | 5                  |
| Math. 2—Adv. Algebra.....                                      | 3                  | French 1, or German 3 or 5 or 6,<br>or English 2, or Rhetoric 11,<br>or Spanish 1..... | 4                  |
| French 1, or German 1 or 4, or<br>English 1, or Spanish 1..... | 4                  | M. E. 41—Shop Practise.....                                                            | 3                  |
| M. E. 41—Shop Practise.....                                    | 3                  | Mil. 2—Military Drill.....                                                             | 1                  |
| Mil. 2—Military Drill.....                                     | 1                  | Mil. 1—Drill Regulations.....                                                          | 1                  |
| Phys. Tr. 1—Gymnasium.....                                     | 1                  | Phys. Tr. 1—Gymnasium.....                                                             | 1                  |
| Total .....                                                    | 18                 | Total .....                                                                            | 19                 |

### SECOND YEAR

|                                  |    |                                  |    |
|----------------------------------|----|----------------------------------|----|
| Math. 7—Diff. Calculus.....      | 5  | Math. 9—Integral Calculus.....   | 3  |
| Phys. 1—Physics Lectures.....    | 3  | Phys. 1—Physics Lectures.....    | 2  |
| Phys. 3—Physics Laboratory.....  | 2  | Phys. 3—Physics Laboratory.....  | 2  |
| Rhet. 1—Rhetoric and Themes..... | 3  | Rhet. 1—Rhetoric and Themes..... | 3  |
| M. E. 4—Mach. Design.....        | 2  | T. & A. M. 7—Analyt. Mech.....   | 3  |
| M. E. 42—Mach. Shop.....         | 3  | M. E. 16—Steam Eng.....          | 3  |
| Mil. 2—Military Drill.....       | 1  | M. E. 42—Mach. Shop.....         | 2  |
| Total .....                      | 19 | Mil. 2—Military Drill.....       | 1  |
|                                  |    | Total .....                      | 19 |

### THIRD YEAR

|                                             |    |                                 |    |
|---------------------------------------------|----|---------------------------------|----|
| T. & A. M. 6—Eng. Materials....             | 1  | M. E. 9—Mach. Design.....       | 3  |
| T. & A. M. 8—Analyt. Mech.....              | 2½ | M. E. 15—Thermodynamics.....    | 3  |
| T. & A. M. 9—Res. of Materials..            | 3½ | M. E. 29—Seminar.....           | 1  |
| M. E. 3—Power Meas.....                     | 2  | T. & A. M. 11—Analyt. Mechanics | 3  |
| M. E. 5—Mechanism.....                      | 3  | E. E. 16—Dynamo Mach.....       | 4  |
| Math. 9a—Int. Calculus.....                 | 2  | Chem. 16—Eng. Chem.....         | 3  |
| Chem. <sup>4</sup> 1b or 1a—Inorg. Chem.... | 4  | Total .....                     | 17 |
| Total .....                                 | 18 |                                 |    |

### FOURTH YEAR

|                                  |    |                                                 |    |
|----------------------------------|----|-------------------------------------------------|----|
| R. E. 1—Locomotives.....         | 2  | R. E. 3—Shops & Aux. Equip.....                 | 2  |
| R. E. 2—Locomotive Design.....   | 3  | R. E. 7—Adv. Design.....                        | 3  |
| R. E. 4—Locomotive Performance.. | 2  | R. E. 10—Seminar.....                           | 1  |
| R. E. 8—Dynamometer Car Tests..  | 2  | R. E. 30—Thesis or approved elec-<br>tive ..... | 3  |
| R. E. 10—Seminar.....            | 1  | R. E. 61—Traction.....                          | 3  |
| M. E. 8—Mech. of Mach.....       | 3  | C. E. 10—Surveying.....                         | 2  |
| E. E. 6—Alt. Currents.....       | 2  | Econ. 16—Econ. Prob.....                        | 2  |
| Econ. 2—Prin. of Economics.....  | 2  | Total .....                                     | 16 |
| Total .....                      | 17 |                                                 |    |

<sup>1</sup>Differs from the course in mechanical engineering only after the first semester of the third year.

<sup>2</sup>Semester hours. For definition see page 307.

<sup>3</sup>The numbers refer to the courses in the Description of Courses, page 307.

<sup>4</sup>Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

# THE COLLEGE OF AGRICULTURE

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For the *buildings* used by this College, see page 69; for a list of its *courses*, page 86; for *clubs auxiliary to its courses of study* page 140; for *honors*, page 120; for *honorary societies*, page 139; for *fees* and *expenses*, page 148.

## GENERAL STATEMENT

This College offers courses of instruction to both men and women. The courses offered to men are designed for three distinct purposes:

First, and mainly, to train for the profession of farming.

Second, to train for the teaching of agriculture in the public schools.

Third, to train for the profession of landscape gardening.

The courses for women, offered by the department of household science, have two purposes in view:

First, and mainly, to train young women in the science and art of household affairs.

Second, to prepare teachers for giving instruction in domestic science in high schools, and, in connection with the College of Liberal Arts and Sciences, to fit for college and university positions.

In the case of both men and women the great purpose is to prepare for the practical affairs of life. Since technical knowledge and skill should be developed along with, and not at the expense of, those things which tend to the production of cultured and versatile men and women, the technical work is closely associated with the related sciences, and students are required to divide their time fairly with those subjects that develop general knowledge and breadth of view.

The College offers over ninety courses of instruction in technical subjects, besides opportunity to elect from the scientific and literary offerings of the other colleges of the University.

The elective system prevails, and with a few exceptions the student is left free to select those subjects which seem best fitted



to meet his needs, always under the advice and guidance of the faculty.

Credit is given for all work accomplished; this credit counts toward graduation if the student desires a degree.

### ADMISSION

For the regulations in regard to admission to the College of Agriculture, see the general statement of the entrance requirements of the University, pages 88ff.

### ADMISSION TO GRADUATE WORK IN AGRICULTURE

While in general it will be expected that applicants for admission to the Graduate School shall have had an undergraduate course in scientific and technical agriculture equivalent to that of the University of Illinois, yet students who are otherwise eligible for admission to the Graduate School may be admitted to graduate standing in agriculture if they have had a thoro training in the sciences underlying agriculture, even though their undergraduate course of study lacked to some extent the amount and kind of technical work included in our course.

### SCHOLARSHIPS IN AGRICULTURE AND HOUSEHOLD SCIENCE

For detailed information concerning scholarships in agriculture and household science, see page 144.

### FACILITIES FOR INSTRUCTION AND METHODS OF WORK

The close affiliation of the College with the work of the Agricultural Experiment Station not only enables the University to support a larger faculty than would otherwise be possible, but also permits a much higher degree of specialization. For the most part those who teach in the College are the ones who conduct experiments in the same subjects in the Station.

The methods of instruction vary with the nature of the courses. In general the laboratory method prevails. Text-books are used whenever good ones are available. Both the laboratory and the text are supplemented by lectures and reference readings. Buildings and laboratory space, illustrative specimens and material, and library facilities are provided.

## AGRICULTURAL EXTENSION

Agricultural extension work serves as the intermediary between the College of Agriculture and the Agricultural Experiment Station on the one hand and the local community and the farm on the other. Each department does extension work, and so far as possible provides special men for such work. The responsibility for the work of these men lies with their own department. For this reason not all of the extension effort issues from one office.

For administrative purposes and to coordinate these activities through a regular channel, agricultural extension is administered as a separate department, conducting all extension enterprises which do not deal with technical subjects and cooperating with other departments in diffusing the results of their work in the State.

Some of the general extension enterprises are: agricultural extension schools and demonstrations in different localities; the Two Weeks' Course given annually at the College in January; helping at farmers' institutes and similar gatherings, with special railway lecture trains, at the boys' state fair school, and in educational exhibits at fairs and elsewhere; welfare work in rural communities; and excursions to the College.

Aside from this, courses of study are offered to assist in determining what phases of agriculture are suitable for secondary school purposes and how they should be taught, and for the discussion of agricultural organization, extension projects, and methods.

## AGRONOMY

The department of agronomy gives instruction in those subjects which relate especially to the field and its affairs, as drainage, farm machinery, field crops; the chemistry, physics, and bacteriology of the soil; manures and rotation in their relation to fertility; plant breeding. The department possesses equipment and facilities for instruction in these subjects, and added to this are opportunities for contact with the research work of the Agricultural Experiment Station, especially in crop production, soil fertility, and plant breeding, both in the analytical and pot culture laboratories and on the experiment fields at the University and in other parts of the State.

Attention is called here to the fact that in case circumstances prohibit a regular four-year course, it is possible for a student who has had sufficient preparatory training so to arrange his studies



as to obtain the necessary prerequisites and complete the general courses in soil physics and soil fertility in two years' time. (See Agronomy 9 and 12.)

### ANIMAL HUSBANDRY

This department offers courses covering the separate study of sheep, swine, poultry, and beef cattle and their products; heavy and light horses with their care and training; the management of herds, flocks, and studs; the principles and practise of feeding, of breeding, and of marketing; and the chemical and physiological phases of animal nutrition.

The University herds, flocks, and studs contain about 500 pure-bred cattle, sheep, swine, and horses, and in addition several hundred fowls, ducks, and turkeys, which are always available for class purposes. These animals are also used for investigations in feeding and breeding, and for illustration of breed types and characteristics. They consist of Shorthorn, Hereford, and Aberdeen-Angus cattle; Shropshire, Oxford, Southdown, Hampshire, Rambouillet, Dorset, and Cheviot sheep; Poland-China, Berkshire, Duroc Jersey, Chester White, Tamworth, and Hampshire swine; Percheron, Standard-bred, Shire, and American Saddle horses. In addition to the above pure-bred livestock, a large number of grade animals of the various classes of livestock furnish ample material for judging practises. In these practises, besides illustrating standard market classes and grades of livestock, special attention is given to instruction in the selection of animals according to feed lot and market requirements. The new stock pavilion offers every opportunity for show and judging work. (For detailed description see page 69.) The lectures of the various courses are supplemented by 1000 or more lantern slides, charts, diagrams, models, and photographs. Pedigree and breed work is facilitated by 75 sets of the different herd, stud, and flock registers, and complete files of the leading American and British journals.

The equipment for instruction and investigation in the feeding, breeding, and management of live stock consists of modern buildings for the housing of beef cattle, swine, sheep, horses, and poultry, with the appliances necessary for individual and collective feeding tests; brick-paved feed lots and open sheds, in which steers may be fed in carload lots; a feed storage barn, with various forms of grinding mills and other machinery for the prepa-

ration of feed; and various kinds of harness, vehicles, and other appliances for the training of horses. The department also maintains a cold storage room and other equipment for conducting demonstrations in the cutting and handling of meats; a collection of wool samples, a fibre testing machine, and microscopes for the study of wool. The chemical and physiological laboratories of the department afford facilities for advanced work in animal nutrition.

### DAIRY HUSBANDRY

The department of dairy husbandry offers courses under the four general divisions of economic milk production, city milk supply, dairy bacteriology, and dairy manufactures.

For instructional and experimental purposes two herds of dairy cows are maintained, one a grade herd used primarily as an experimental herd, the other a pure bred herd composed of Holstein, Friesians, Guernseys, Jerseys, and Ayrshires.

For instruction in dairy cattle and economic milk production, free use is made of both herds.

The actual business of economic milk production is illustrated by a twenty-acre dairy farm conducted by the department for the purpose of producing the most milk possible per acre, at the least expense. The feeding and breeding experiments, while conducted primarily for the use of the Experiment Station, are of value to the student.

Practical instruction in city milk supply is given in a dairy building used exclusively for cooling and bottling from the pure bred herd. Sanitary methods of delivery are still further illustrated in the daily distribution of this milk on the University milk route.

A bacteriological laboratory affords facilities for instruction in the courses in dairy bacteriology and city milk supply, and for bacteriological studies necessary when outbreaks of communicable disease appear to be due to the local milk supply. The laboratory is used also in the investigation of specific dairy problems.

Facilities for instruction in the manufacture of butter and cheese are provided in the University creamery, where 400 pounds of fat, in the form of whole milk and cream, are daily made into butter and marketed on a commercial basis. The creamery is equipped with cream separators, pasteurizers, cream ripeners, churns, and refrigerating machine. The student has free access to these rooms for laboratory purposes. In addition to this, the cream-



ery and apparatus are used in investigation of problems involved in the manufacture of butter.

## HORTICULTURE

The department of horticulture offers instruction in forty-four courses, covering the five divisions of horticulture (pomology, olericulture, floriculture, landscape gardening, and forestry), and also in subjects dealing with principles and practises applicable to all the divisions, such as plant propagation, spraying, the evolution of horticultural plants, and experimental horticulture.

For the instruction in pomology, use is made of the various fruit plantations maintained by the department. The orchards of different ages afford opportunities for practise in pruning and studies of tree types; while the products furnish materials for practise in the grading and packing of fruits and the study of systematic pomology. A collection of fruit packages is maintained to illustrate the various types used in commercial packing. There is also a collection of wax models of fruits representing the principal varieties grown in Illinois.

For the use of students in olericulture, or vegetable gardening, certain areas of ground are reserved, on which the various garden operations are illustrated, and various crops are grown. In addition to the land, the equipment for instruction in vegetable gardening consists of a greenhouse 105x28 feet, hotbed frames and sash, seed drills and wheel hoes of various types, an assortment of hand tools, markers, planters, and other special tools, tying material and packing boxes for onions, asparagus, lettuce, and other products, with other accessories and appliances for the growing and handling of vegetables.

The equipment for instruction in floriculture includes ten glass houses covering an aggregate area of 28,000 square feet. Six of these houses, including the palm house with an area of 3,200 square feet, are used for instructional work exclusively, while the other four are intended primarily for experimental purposes, but incidentally add to the facilities for giving instruction in floriculture as conducted on a commercial basis. Besides roses, carnations, and chrysanthemums, the houses contain a selection of plants representing all the forms used in commercial and decorative or conservatory work. In connection with the greenhouses there is a service building, containing laboratories, class rooms and offices, as well as potting, storage, and work rooms. A full assortment of

florists' supplies is maintained. Floricultural periodicals, reference books, and a series of over five hundred slides add to the equipment. The ornamental gardens maintained by the department furnish illustrative material for students in both floriculture and landscape gardening.

The equipment for instruction in landscape gardening includes two drafting rooms with desks for individual students, a herbarium, and library. The library contains a collection of books relating to the subject of landscape gardening, with a complete card catalog, photographs of examples of both foreign and American landscape design, drawings and blue prints from representative landscape offices, and the leading periodicals relating to landscape gardening.

The collection of shrubs and trees growing upon the campus and about certain residences in the vicinity of the University furnishes material for plant studies in connection with the courses in planting design. A series of 1,500 lantern slides is used in the lectures in landscape gardening.

Instruction in forestry is facilitated by a collection of native woods and a forest tree plantation of some thirty acres, consisting of Scotch pine, white pine, Norway spruce, European larch, green ash, black walnut, hickory, bur oak, white elm, and other species.

## HOUSEHOLD SCIENCE

The courses of instruction given in this department are planned to meet the needs of two classes of students, viz.: (a) those students who specialize in other lines of work, but desire a knowledge of the general principles and facts of household science; (b) those students who wish to make a specialty of household science.

The department of household science is housed in the north wing of the Woman's Building. The kitchen for extension work, with dining room adjoining and a laundry, are in the basement. The first floor contains two class rooms, a seminar room, an exhibition room for illustrative material for work in house construction and textile fabrics, offices, and cloak rooms. On the second floor are individual, diet, institutional, and class kitchens, small and large dining rooms, chemical laboratory, two large sewing rooms, offices, and store rooms. On this floor provision is made for the study of the preparation and service of food in large quantities in the institutional kitchen and large dining room adjoining. The equipment on this floor provides practise for those interested in the problems



of lunch room management and for dietitians. The third floor contains additional sewing rooms, offices, equipment for teaching home care of the sick, and an apartment in which the problems of house construction, house furnishing, and household administration are studied.

### VETERINARY SCIENCE

In the department of veterinary science the student is instructed in subjects relating to the prevention of disease among domestic animals and their treatment when affected by disease.

### REQUIREMENTS FOR GRADUATION

Students who have satisfied all matriculation requirements and have maintained throughout their course a satisfactory record of scholarship and moral character will be graduated with the degree of Bachelor of Science, upon having completed the studies of the prescribed list and sufficient electives to make a total of 130 semester hours.

A thesis is not required for graduation, but any student who has completed not less than 90 hours of credit before the senior year may then elect a thesis course in any department in which he has done not less than 20 hours' work, subject to the approval of the head of the department in question.

Graduates of approved colleges may expect to secure a degree in agriculture from the University of Illinois upon completion of the technical and scientific requirements. This will ordinarily require approximately two years of residence work; a minimum of one year will be exacted.

### GENERAL COURSE IN AGRICULTURE

All students except those in the special courses in household science, floriculture, and landscape gardening are required to take the same work during the freshman year and part of the sophomore year. This work gives the student a correct conception of the fundamental farm practises and an insight into the technical branches of agriculture, such as animal and dairy husbandry, horticulture, farm crops, soils, farm mechanics, buildings, etc., and leaves the junior and senior years open for election.

One hundred thirty hours are required for graduation, as follows:

|                                          |           |
|------------------------------------------|-----------|
| Agriculture prescribed first two years.  | 19 hours  |
| Agriculture prescribed as electives....  | 40 hours  |
| <hr/>                                    |           |
| Total agriculture required.....          | 59 hours  |
| Non-agriculture prescribed.....          | 42 hours  |
| Non-agriculture prescribed as electives. | 15 hours  |
| <hr/>                                    |           |
| Total non-agriculture required.....      | 57 hours  |
| Open electives.....                      | 14 hours  |
| <hr/>                                    |           |
|                                          | 130 hours |

#### PREScribed SUBJECTS

*Required for the Degree of Bachelor of Science in the General Course in Agriculture*

#### FIRST YEAR

| <i>First Semester</i>      | Hours | <i>Second Semester</i>         | Hours |
|----------------------------|-------|--------------------------------|-------|
| Chemistry 1.....           | 5     | Chemistry 2 and 3.....         | 5     |
| Rhetoric 1*.....           | 3     | Rhetoric 1.....                | 3     |
| Agronomy 25.....           | 4     | Animal Husbandry 5.....        | 3     |
| Horticulture 1a.....       | 2     | Dairy Husbandry 3.....         | 1     |
| Agricultural Extension 4a. | ½     | Horticulture 1b.....           | 2     |
| Military 2.....            | 1     | Agricultural Extension 4b..... | ½     |
| Physical Training.....     | 1     | Military 1 and 2.....          | 2     |
|                            |       | Physical Training.....         | 1     |

#### SECOND YEAR

|                            |   |                               |   |
|----------------------------|---|-------------------------------|---|
| Chemistry 13a or Botany 1. | 5 | Botany 1 or Chemistry 13a.... | 5 |
| Animal Husbandry 6.....    | 3 | Agronomy 26.....              | 3 |
| Military 2.....            | 1 | Military 2.....               | 1 |
| Electives                  |   | Electives                     |   |

In addition to the above, students will take the following:

|                                 |          |
|---------------------------------|----------|
| Agriculture, electives.....     | 40 hours |
| Non-agriculture, electives..... | 15 hours |
| English 20.....                 | 4 hours  |
| Science, elective.....          | 5 hours  |
| Open electives.....             | 14 hours |

\*Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric 1 may be excused from the first semester's work. See page 95.



Students registered previous to September, 1912, will meet the requirements outlined below so far as it is possible to do so:

#### PREScribed SUBJECTS

#### *Required for the Degree of Bachelor of Science in the General Course in Agriculture*

|                                     |     |       |
|-------------------------------------|-----|-------|
| Agronomy 6 or 7, 9, 12.....         | 12½ | hours |
| Animal Husbandry 7.....             | 3   | hours |
| Chemistry 1, 2, 3, 13a.....         | 15  | hours |
| Dairy Husbandry 1.....              | 3   | hours |
| Economics 2.....                    | 2   | hours |
| English 20.....                     | 4   | hours |
| Entomology 4.....                   | 3   | hours |
| Horticulture 1, 10a.....            | 8   | hours |
| Military 1, 2.....                  | 5   | hours |
| Physical Training 1, 1a.....        | 2   | hours |
| Rhetoric 1.....                     | 6   | hours |
| Animal Husbandry 30 (Genetics)..... | 5   | hours |

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Total prescribed subjects..... 68½ hours

|                                    |    |       |
|------------------------------------|----|-------|
| Elective List A; a minimum of..... | 4  | hours |
| Elective List B; a minimum of..... | 3  | hours |
| Elective List C; a minimum of..... | 25 | hours |
| Elective List D; a minimum of..... | 10 | hours |

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Total ..... 42 hours

#### ELECTIVE LISTS

List A—Animal Husbandry 1 to 4, 11 to 14, 17 to 18, 22

Dairy Husbandry 2

List B—English literature 2, 16, 23

Rhetoric 16, 20, 19, 3

List C—This list includes all subjects offered in technical agriculture and not included in the prescribed list, viz.:

Agricultural Extension 1, 3

Agronomy 1 to 8, 10, 13, 16 to 22

Animal Husbandry 1 to 4, 8 to 14, 16, 18, 21 to 23b

Dairy Husbandry 2, 7, 8, 11 to 22

Horticulture 2 to 9, 10b to 15b, 17 to 34

Veterinary Science 2, 4, 5, 6

List D—Botany 1, Botany 5, Zoology 1

*Summary*

|                                |           |
|--------------------------------|-----------|
| Total prescribed subjects..... | 68½ hours |
| Total list electives.....      | 42 hours  |
| Total open electives.....      | 19½ hours |
| <hr/>                          |           |
| Total .....                    | 130 hours |

## GENERAL COURSE IN FLORICULTURE

The object of this course is to fit men and women for the profession of floriculture. The laboratory exercises in the technical subjects consist of practical work in the greenhouses and garden and give the student a working knowledge of the best methods now in use.

## PRESCRIBED SUBJECTS

*Required for the Degree of Bachelor of Science in General Course in Floriculture*

|                                                               |          |
|---------------------------------------------------------------|----------|
| Agronomy 9, 12.....                                           | 10 hours |
| Animal Husbandry 30.....                                      | 5 hours  |
| Botany 1, 2, 7.....                                           | 15 hours |
| Chemistry 1, 2, 3, 13a.....                                   | 15 hours |
| Economics 2.....                                              | 2 hours  |
| English 20.....                                               | 4 hours  |
| Entomology 4.....                                             | 3 hours  |
| Horticulture 4, 5, 7, 10a, 10b, 12, 15a, 15b, 30, 31, 32..... | 41 hours |
| Military 1, 2.....                                            | 5 hours  |
| Physical Training 1, 1a.....                                  | 2 hours  |
| Rhetoric 1.....                                               | 6 hours  |
| Zoology 1.....                                                | 5 hours  |

|                       |           |
|-----------------------|-----------|
| Total prescribed..... | 113 hours |
| Free electives.....   | 17 hours  |

|             |           |
|-------------|-----------|
| Total ..... | 130 hours |
|-------------|-----------|

## COURSE OF INSTRUCTION

## First Year

1. Entomology 4; Chemistry 1; Rhetoric 1; Horticulture 4; Military 2; Physical Training 1, 1a.

2. Chemistry 2; Chemistry 3; Rhetoric 1; Horticulture 5; Military 1, 2; Physical Training 1, 1a.



## Second Year

1. English 20; Chemistry 13a; Botany 2; Military 2.
2. Zoology 1; Horticulture 15a; Botany 1; Military 2.

## Third Year

1. Botany 7; Agronomy 9; Horticulture 15b; Economics 2.
2. Agronomy 12; Horticulture 7; Electives, 8 hours.

## Fourth Year

1. Horticulture 10a; Horticulture 12a; Horticulture 31; Electives, 6 hours.
2. Horticulture 30; Horticulture 32; Animal Husbandry 30; Horticulture 10b.

## GENERAL COURSE IN HOUSEHOLD SCIENCE

Of the 130 hours required for graduation, 91 are provided for in the prescribed list and the restricted electives of List A. The other 39 hours of credit necessary for graduation may be taken, subject to the approval of the Dean of the College, from any courses offered in the University. Holders of scholarships in household science in this College take the course as laid out here. Variations from it can be made only by special permission of the Council of Administration on recommendation of the faculty of the College.

## PRESCRIBED SUBJECTS

*Required for the Degree of Bachelor of Science in General Course in Household Science*

|                                                  |              |
|--------------------------------------------------|--------------|
| Art and Design 1, 12, 19.....                    | 9 hours      |
| Botany 1, 5.....                                 | 10 hours     |
| Chemistry 1, 2, 3.....                           | 10 hours     |
| English 1.....                                   | 8 hours      |
| Household Science 1, 2, 3, 6, 7, 10, 12, 14..... | 20 hours     |
| History 1, or 3.....                             | 6 or 8 hours |
| Physiology 4.....                                | 5 hours      |
| Physical Training 7, Physiology 6.....           | 3 hours      |
| Rhetoric 1.....                                  | 6 hours      |
| Zoology .....                                    | 5 hours      |

|                            |         |
|----------------------------|---------|
| English or Rhetoric.....   | 5 hours |
| *List A, a minimum of..... | 4 hours |

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|                               |                |
|-------------------------------|----------------|
| Total required subjects ..... | 91 to 93 hours |
| Electives .....               | 39 to 37 hours |

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Total .....130 hours

#### ELECTIVES

List A.—English 19, 24  
 Horticulture 1a, 1b, 2, 3, 5, 19, 28  
 Household Science 5, 13  
 Economics 2, Sociology 1  
 Physics 2a  
 Education 1, 2, 6, 9  
 Agronomy 2, 5, 7  
 Animal Husbandry 10, 2, 3  
 Dairy Husbandry 1, 3, 14, 19

#### Course of Instruction

##### First Year

1. Household Science 2; Chemistry 1; Rhetoric 1; Physical Training 7 and 9; Art and Design 1.

2. Household Science 1, 7; Chemistry 2, 3; Rhetoric 1; Physical Training 7.

##### Second Year

1. Household Science 6; Zoology 1; English 1; Horticulture 19; Electives.

2. Household Science 14; Botany 1; Art and Design 12; Horticulture 19; English 1; Electives.

##### Third Year

1. Art and Design 19; Physiology 4; Advanced English; Electives.

2. Household Science 3, 12; Advanced English; Economics 2; Art and Design 19; Electives.

##### Fourth Year

1. Sociology 1; Education 1; History 3.

2. Education 2 or 6; Botany 5; History 3; Household Science 10.

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\*If Physics has not been offered for entrance, its equivalent should be elected.



## GENERAL COURSE IN LANDSCAPE GARDENING

## Course Required for the Degree of B. S. in Landscape Gardening

A four years' course in preparation for professional practise, is open to any student in the University having the prerequisites or their equivalents.

## FIRST YEAR

| FIRST SEMESTER                   |    | SECOND SEMESTER                    |    |
|----------------------------------|----|------------------------------------|----|
| <i>Prescribed Subjects</i>       |    | <i>Prescribed Subjects</i>         |    |
| Math. 4—Trigonometry.....        | 2  | Entomology 4—Intr. to Econ. Ent. 3 | 3  |
| Rhet. 1—Rhetoric and Themes..... | 3  | Rhet. 1—Rhetoric and Themes.....   | 3  |
| Arch. 31—Drawing.....            | 4  | Arch. 32—Arch. Drawing.....        | 4  |
| Botany 11—Introduct. Course..... | 5  | Hort. 5—Plant Propagation.....     | 5  |
| Mil. and P. T.....               | 2  | Mil. and P. T.....                 | 3  |
| Total .....                      | 16 | Total .....                        | 18 |

## SECOND YEAR

| <i>Prescribed Subjects</i>      |    | <i>Prescribed Subjects</i>      |    |
|---------------------------------|----|---------------------------------|----|
| Hort. 10a—Landscape Gardening.. | 3  | Hort. 10b—Landscape Design..... | 3  |
| Arch. 33—Sophomore Design.....  | 3  | Hort. 24a—Trees and Shrubs..... | 3  |
| C. E. 21—Surveying.....         | 5  | C. E. 22—Surveying.....         | 4  |
| Military .....                  | 1  | Military .....                  | 1  |
| Total .....                     | 12 | Total .....                     | 11 |

| <i>Electives</i>                  |   | <i>Electives</i>                 |   |
|-----------------------------------|---|----------------------------------|---|
| <i>Plants—</i>                    |   | <i>Plants—</i>                   |   |
| Chemistry 1—Inorg. Chem.....      | 5 | Hort. 2—Small Fruits.....        | 2 |
| <i>Design—</i>                    |   | Agronomy 9—Soils.....            | 5 |
| Art and Design 4—Water Color..... | 2 | <i>Design—</i>                   |   |
| Hort. 31—Garden Flowers.....      | 3 | Art and Des. 12—Theory and Prac. | 2 |
|                                   |   | Geology 12.....                  | 5 |

## THIRD YEAR

| <i>Prescribed Subjects</i>        |    | <i>Prescribed Subjects</i>        |    |
|-----------------------------------|----|-----------------------------------|----|
| Hort. 23a—Landscape Design.....   | 3  | Hort. 23b—Landscape Design.....   | 3  |
| Hort. 24b—Trees and Shrubs.....   | 3  | Hort. 26a—Planting Design.....    | 3  |
| Hort. 27a—Landscape Practise..... | 3  | Hort. 27b—Landscape Practise..... | 3  |
| Arch. 6—History of Arch.....      | 4  | Arch. 6—History of Arch.....      | 4  |
|                                   |    | Hort. 36—Landscape Reading.....   | 2  |
| Total .....                       | 13 | Total .....                       | 15 |

| <i>Electives</i>                    |   | <i>Electives</i>                |   |
|-------------------------------------|---|---------------------------------|---|
| <i>Plants—</i>                      |   | <i>Plants—</i>                  |   |
| Hort. 8—Fruit Culture.....          | 5 | Hort. 7—Spraying.....           | 3 |
| <i>Design—</i>                      |   | Hort. 9—Forestry.....           | 2 |
| Hort. 29a—Garden Design.....        | 3 | <i>Design—</i>                  |   |
| Art and Des. 13—Hist. and Prac..... | 2 | Hort. 29b—Garden Design.....    | 3 |
| <i>Civic Design—</i>                |   | Art and Design 8—Modeling.....  | 2 |
| Economics 2—Prin. of Econ.....      | 2 | <i>Civic Design—</i>            |   |
| Sociology 1—Prin. of Soc.....       | 3 | Rhetoric 17—Adv. Comp.....      | 3 |
|                                     |   | Sociology 7—The Rural Community | 2 |

FOURTH YEAR

| <i>Prescribed Subjects</i>        |   | <i>Prescribed Subjects</i>       |    |
|-----------------------------------|---|----------------------------------|----|
| Hort. 25a—Landscape Design.....   | 3 | Hort. 25b—Landscape Design.....  | 3  |
| Hort. 26b—Planting Design.....    | 3 | Hort. 28—Exotics.....            | 1  |
| Hort. 37a—Civic Design.....       | 2 | C. E. 1—Roads and Pavements..... | 2  |
|                                   |   | Hort. 38—Field Practise.....     | 2  |
|                                   |   | Hort. 37b—Civic Design.....      | 3  |
| Total .....                       | 8 | Total .....                      | 11 |
| <i>Electives</i>                  |   | <i>Electives</i>                 |    |
| <i>Plants—</i>                    |   | <i>Plants—</i>                   |    |
| Hort. 31—Garden Flowers.....      | 3 | Hort. 15a—Plant Growing.....     | 5  |
| <i>Design—</i>                    |   | <i>Design—</i>                   |    |
| Hort. 25a (Extra hours).....      |   | Hort. 25b (Extra hours).....     |    |
| Art and Design 4—Water Color..... | 2 |                                  |    |
| <i>Civic Design—</i>              |   |                                  |    |
| Sociology 10—Population.....      | 3 |                                  |    |
| Pol. Sci. 4—Mun. Govern.....      | 3 |                                  |    |

GENERAL ELECTIVES

|                       |         |
|-----------------------|---------|
| Modern language.....  | 8 hours |
| Zoology 1.....        | 5 hours |
| Horticulture 19a..... | 1 hour  |
| Horticulture 19b..... | 1 hour  |

REQUIREMENTS FOR GRADUATION

The following are the requirements for the degree of Bachelor of Science in Landscape Gardening:

1. The student must complete the work outlined in the course as prescribed subjects.
2. There must be obtained from the elective subjects enough additional credits to complete the graduation requirement of 130 hours.

GENERAL COURSE FOR PROSPECTIVE TEACHERS OF AGRICULTURE

A general course is offered for prospective teachers of agriculture. Among the subjects recommended are the following:

Agronomy 2, 9, 12, 25, 26; Animal Husbandry 1a, 2a, 4a, 5, 6, 11a, 11b, 30\*; Dairy Husbandry 2, 3; Horticulture 1a, 1b, 3, 5, 10a, 19; Agricultural Extension 1, 4; Botany 1, 12; Chemistry 1, 2, 3, 13a; Entomology 4; Zoology 1; English 20; Rhetoric 1, 5, 7, 19; Economics 2; Education 1, 6; Library Science 12; Military 1, 2; Physical Training 1, 1a; foreign language.

For further information concerning this course, address the Dean of the College of Agriculture.

\*Students taking the Teachers' course may take Animal Husbandry 30 for one-half semester and receive 2½ credits therefore.



## TWO WEEKS' COURSE IN AGRICULTURE AND HOUSEHOLD SCIENCE

### AGRICULTURE

The Corn Growers' and Stockmen's Convention is held annually at the College of Agriculture (in 1914, January 19-30). At the time of this meeting, the College gives instruction for two weeks in subjects of special interest to young men on the farm, such as corn and stock judging, milk and seed testing, soils, etc. A morning session of two hours each day is devoted to the discussion of questions of importance to the farmer. In the afternoon an hour is given to lectures upon topics of general interest. The rest of the day is filled with class work in the subjects mentioned above. Each year about a thousand men who are unable to spend a longer time away from home avail themselves of this opportunity to come in touch with the work of the College.

### HOUSEHOLD SCIENCE

At the same time, a two-weeks' course in household science consisting of lectures and recitation work is given in the rooms of the department of household science in the Woman's Building.

### ADMISSION

No entrance examinations are required and any farmer or farmer's son or daughter may enter these courses. It is important that everyone should be here at the opening of the session. Upon arrival at Champaign or Urbana, application should be made at the University Young Men's Christian Association, where information concerning board and room may be obtained.

# THE GRADUATE SCHOOL

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## THE EXECUTIVE FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., *President of the University*  
DAVID KINLEY, Ph.D., LL.D., *Vice-President, Dean of the Graduate School, Director of the Courses in Business Administration, and Professor of Economics*

BOYD HENRY BODE, Ph.D., *Professor of Philosophy*

ALBERT PRUDEN CARMAN, A.M., D.Sc., *Professor of Physics*

JULIUS GOEBEL, Ph.D., *Professor of German*

EVARTS BOUTELL GREENE, Ph.D., *Professor of History*

HERBERT WINDSOR MUMFORD, B.S., *Professor of Animal Husbandry*

WILLIAM ABBOTT OLDFATHER, Ph.D., *Associate Professor of the Classics*

SAMUEL WILSON PARR, M.S., *Professor of Applied Chemistry*

STUART PRATT SHERMAN, Ph.D., *Professor of English*

ARTHUR NEWELL TALBOT, C.E., *Professor of Municipal and Sanitary Engineering*

HENRY BALDWIN WARD, Ph.D., *Professor of Zoology*

EDGAR JEROME TOWNSEND, Ph.D., *Professor of Mathematics*

## HISTORY AND ORGANIZATION

Altho for many years the University of Illinois had offered advanced students facilities for study and research in various lines, graduate work was undertaken under the name of the Graduate School for the first time in 1892. In 1894 the administration of the School was vested in the Council of Administration, and the Vice-President of the University became dean of the School. In 1906 the Graduate School was organized as a separate faculty, consisting of a dean and members of the University faculty assigned to this duty by the President. No means of support were provided, however, separate from those provided for the undergraduate work.



In the winter of 1906-7, the Forty-fifth General Assembly of the State passed an act appropriating \$50,000 per year for the support of a Graduate School of Fine Arts and Sciences in the State University. This appropriation has been continued by succeeding legislatures.

By an act of the Board of Trustees the teaching faculty of the Graduate School includes all members of the University faculty who give instruction in courses approved for graduate credit. The affairs of the School, however, are in charge of the executive faculty appointed each year by the President.

### ADMISSION

For admission to the Graduate School to work for a degree an applicant must hold a first degree either from the University of Illinois or from some other university or college of equivalent standing. Admission to particular graduate courses or departments may be secured only by those who have had the requisite undergraduate work in those courses or departments.

In order to be enrolled as a member of the Graduate School a student must be doing graduate work. The possession of a first degree does not entitle a student to be enrolled in the Graduate School, if the courses which he is taking are undergraduate.

Students of mature age who do not hold a first degree, but satisfy the Dean of the School and the officers of the departments in which they wish to work of their earnestness of purpose and special fitness, may be permitted to take work in the Graduate School without reference to candidacy for a degree. In order to secure this permission, however, a candidate must have had such preliminary preparation for the work he wishes to take up as would justify his admission to the Graduate School as a candidate for a degree if he could meet the other requirements fully.

Each student is required to attend a minimum of four class, lecture, or laboratory exercises a week in the first year of his graduate study; in no case is he permitted during his course to attend more than twelve exercises a week.

Continuous residence and study are required of all members of the Graduate School, unless they are granted leave of absence by the Dean, upon recommendation of the professors in charge of their work, for the purpose of carrying on elsewhere studies or investigation in the line of work for their degrees.

The principal aim of graduate study is the development of the power of independent work and the promotion of the spirit of research. Each candidate for a degree is expected to have a wide knowledge of his subject and of related fields of work; for the graduate student is not expected to get from lecture and laboratory courses all the knowledge and training necessary to meet the requirements for his degree.

Students are warned against restricting themselves merely to the courses prescribed or suggested by the departments in which they are studying. Each student is expected to do a wide range of private reading and study; and in many cases will find it advisable to take one or more courses of lectures quite outside the field of his chosen subjects.

Application blanks for admission may be secured from the Dean of the Graduate School or from the Registrar of the University.

### THE MASTER'S DEGREE

Candidates for the degree of Master of Arts or Master of Science are required to do at least one year's work in residence and to write a thesis.

A candidate for a master's degree may do all his work in one subject, or he may select a major and one minor, or a major and two minors. A major or minor denotes the field of knowledge of a department, or such part thereof as constitutes a separate and independent division of that field. The candidate must do at least half his work in his major subject.

Each candidate for a master's degree is also required to present a thesis on some subject approved by the professor in charge of his major work and the faculty of the School. The requirement of a thesis may be waived, however, upon the recommendation of the head of the department in which the student is doing his major work and the approval of the Dean, provided application to waive the thesis is made at the beginning of the year. *In no case will permission to take the degree without a thesis be given if applied for later than the latest date for the approval of thesis subjects, as shown by the calendar.*

The thesis required from a candidate for a master's degree ordinarily will demand about one-fourth of the student's time. The thesis must be type-written, on "thesis paper," and the title-page must be printed. The thesis, in its final form, together with



a certificate of approval by the proper officer, must be left by the student at the Dean's office at the time set in the calendar.

Credit is not given for work done in other universities. The candidate is examined here on the subjects offered by him for the advanced degree.

#### THE MASTER'S DEGREE IN ENGINEERING

Two classes of second degrees are open to graduates of the College of Engineering, namely, academic and professional.

The *academic* second degree in engineering is Master of Science, following Bachelor of Science, in Architecture, Architectural Engineering, Civil Engineering, Electrical Engineering, etc. This degree is conferred in accordance with the regulations described above *for academic work in residence only*.

The *professional* second degrees in engineering are as follows:

Master of Architecture after B. S. in Architecture.

Architectural Engineer after B. S. in Architectural Engineering.

Civil Engineer after B. S. in Civil Engineering or B. S. in Municipal and Sanitary Engineering.

Electrical Engineer after B. S. in Electrical Engineering.

Mechanical Engineer after B. S. in Mechanical Engineering.

Civil Engineer, Electrical Engineer, or Mechanical Engineer, after B. S. in Railway Engineering, according to the course.

Professional degrees are conferred upon two classes of candidates: 1. Graduates of the College of Engineering of the University of Illinois who have been engaged in acceptable professional work away from the University for a period of not less than three years after receiving the degree of Bachelor of Science. 2. Graduates of the University of Illinois, or of institutions of equal standing, who have been engaged in acceptable professional work in residence at the University for a period of not less than three years after receiving the degree of Bachelor of Science.

In "acceptable professional work" may be included contributions to technical literature, activity in professional societies, investigations of engineering problems, and the teaching of engineering subjects.

A candidate must declare his candidacy and file with the Dean of the College of Engineering, as chairman of the committee in charge, a detailed statement covering his professional study and experience, not later than the first Monday in November preceding the commencement at which he proposes to qualify. Prior to De-

cember 31 next succeeding, he must submit for approval an outline of his proposed thesis and he must file his completed thesis not later than April 1. If the statement of professional experience and study and the thesis are accepted, the candidate must present himself at commencement in order to receive the degree.

Candidates for professional degrees in engineering who already hold the degree of Master of Science may qualify for the professional degree after two years of professional work.

A candidate for a professional degree in engineering must pay the incidental fee of twenty-four dollars on being notified that his professional study and experience are accepted as qualifying him to enter as a candidate for the degree.

## THE DEGREE OF DOCTOR OF PHILOSOPHY

*General Statement of Requirements.*—The requirements for the degree of Doctor of Philosophy are a thoro mastery of a selected field of study, evidence of the power of independent investigation in this field, a broad knowledge of the wider field of study of which this major subject is a part, a general acquaintance with related fields of knowledge, and a mastery of all branches of study which are necessary to a full knowledge of the main subject. Each student who is seeking this degree is expected to choose for study and final examination a major subject, or field of study, and a first and second minor. The major subject is the field in which the student expects to become expert and an authority. The first minor must be a subject closely related to the major and may, under certain conditions and with proper approval, be a subdivision of the major field of study. The second minor should be chosen outside of the major field of study.

When a candidate chooses any subject as his major, and a division of that subject as his minor, he is not permitted to choose as a second minor any division of work in that same department, excepting by vote of the executive faculty of the School.

The candidate's list of subjects must receive the approval of the head of the department in which he chooses his major work and of the Dean of the School.

*Period of Study.*—The minimum period of study required for securing the degree of Doctor of Philosophy is three years. The degree is conferred, however, not for residence during a certain period, but for scholarly attainments and power of investigation, as proved by thesis and examinations.



Candidates should note that credit is not given for work done in other universities, excepting in the sense that their residence at other institutions is counted towards the residence requirement for the doctor's degree.

At least the first two or the last one of the three years required must be spent at this University.

*Examinations.*—Towards the end of his second year of study, or, by special permission, at the beginning of his third year, the candidate for the degree must submit to a preliminary examination conducted by the members of the faculty with whom he is doing his principal work, in order to determine whether he will be accepted as a candidate for the degree in the following year. This examination is partly oral, and may be wholly so. At this time, or before, the candidate will be required to demonstrate his ability to read French and German, and any other language needed for the prosecution of his work.

On or before the last Monday in May of the year in which the candidate expects to come up for his degree, he must submit to a final examination by a committee appointed by the Dean of the Graduate School. This examination will be partly written. The candidate will also have, however, an oral examination. These examinations will not be confined to the courses which the candidate has attended in the University of Illinois only, if he has done part of the work elsewhere; nor even to the field covered by the courses specifically taken in this or other universities; but will be so conducted as to determine whether the candidate has a satisfactory grasp of his major subject as a whole, and a general acquaintance with the broad fields of knowledge represented by his course of study.

Before the candidate is admitted to the final examination and the defense of his thesis, he may be required to take any other examination, oral or written, that is thought proper by the various departments in which he has studied. If, after having passed his preliminary examination, he fails in the third year of his study to meet the expectations of the professors in charge of his work, or in any way fails to maintain the standard of scholarship and power of research expected of him, he may be refused admission to the final examination.

The final examination in the major and minor subjects may not be divided. The examination must be taken all at one time even though it requires several sessions.

*Thesis.*—The power of independent research must be shown by the production of a thesis on some topic connected with the major subject of study. The candidate is expected to defend his thesis or dissertation before the members of the faculty, or as many of them as may wish to question him about it, in connection with his final examination.

The subject of the thesis should be chosen not later than the end of the second year of study, and must be submitted for formal approval by the faculty not later than the first Monday of November of the year when the degree is expected. A typewritten copy of the complete thesis, on thesis paper, with proper certificate of approval, must be in the hands of the Dean not later than noon of the Saturday nearest the middle of May.

The thesis must be printed and one hundred copies deposited in the library of the University before the degree is conferred. If, for any reason, the thesis cannot be printed and one hundred copies deposited before commencement time, the candidate must, before the first Monday in June, deposit a bond acceptable to the Comptroller of the University and the Dean of the Graduate School for the cost of printing his thesis, or such part thereof as may be regarded as sufficient to meet the requirements of the rules.

The title page of each thesis must bear the words "Submitted in partial fulfillment of the requirements of the degree of Doctor of Philosophy in—(here put the major subject), in the Graduate School of the University of Illinois." The title page must also contain the full name of the author, the full title of the thesis, the year of imprint, and, if a reprint, the title, volume, and statement of the pagination of the volume from which it is reprinted. Each thesis must have an appendix giving a short biography of the candidate, including the institutions he has attended, his degrees and honors, the titles of his publications, and such other matters as may be pertinent.

## SCHOLARSHIPS AND FELLOWSHIPS

A number of fellowships and scholarships have been established by the Trustees of the University. To first year graduate students of ability and promise there are open scholarships with a stipend of \$250 each and freedom from tuition, incidental, and laboratory fees. To second and third year graduate students, that is, those who have had one or two years of graduate study, there are open fellowships with a stipend varying from \$300 to \$500, with freedom from fees. The larger stipends are given only to students who are expected to



take their degrees within the year. Each holder of a fellowship or scholarship must pay the matriculation fee of ten dollars, unless he holds a first degree from the University of Illinois, and also the diploma fee of five dollars on receiving his diploma.

Candidates for these scholarships and fellowships must be graduates of the University of Illinois, or of colleges or universities having equivalent requirements for bachelors' degrees.

Application must be made upon blanks to be obtained from the Dean of the Graduate School. These application forms should be addressed to the Dean of the Graduate School as early as possible in February of the academic year preceding that for which the fellowship is desired.

Persons appointed are required to send the Secretary of the Board of Trustees prompt notice of their acceptance or refusal; and to agree that, if accepted, the appointment will not be resigned to take a similar one in any other institution during the year for which it is awarded.

Nominations to fellowships are made upon the grounds of worthiness of character, scholastic attainments, and promise of success in the principal line of study or research to which the candidate proposes to devote himself.

Scholarships and fellowships are good for one year, but may be renewed for a second or a third year in special cases. An appointment as honorary fellow, without stipend, may be made as specified for paid fellowships in the case of any one who has shown distinguished merit in his work.

#### RESEARCH FELLOWSHIPS IN THE ENGINEERING EXPERIMENT STATION

The Engineering Experiment Station is devoted entirely to research. Its purposes are the elevation of engineering education, and the study of problems of special importance to engineers and to manufacturing, railway, mining, and industrial interests.

Ten fellowships, each of five hundred dollars a year, have been established in the Engineering Experiment Station. Applicants to whom these fellowships are awarded agree to hold them for two years. They devote half of their time to the work of the Engineering Experiment Station, which work is not applicable toward a degree; the other half of their time is given to graduate study in candidacy for a degree. Application for these fellowships should be made to the Director of the Engineering Experiment Station.

## THE GRADUATE CLUB

The Graduate Club is an unofficial organization of the graduate students and graduate faculty. Its purpose is to furnish an opportunity for those working in different departments to become acquainted with one another and thus counteract the tendency toward narrowness which graduate work often develops.



# THE LIBRARY SCHOOL

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For a description of the *Library Building*, see page 71; for an account of the *libraries* themselves, see pages 79-82; for the *collection in library economy*, see page 80; for *fees*, see page 148.

## GENERAL STATEMENT

The Library School offers a two years' course of instruction to students who wish to enter library work as a profession, and certain library courses to students in other schools and colleges of the University of Illinois who may wish to elect them as a part of their course of training. The instruction in the first or junior year covers the generally accepted methods and practises in library work; students who complete this year's work are prepared to accept positions in library service. In the second or senior year greater emphasis is placed upon historical and comparative methods of treatment; new subjects are introduced to give the student a broad outlook and a scholarly, technical, and administrative equipment for the more responsible positions.

One or two years' training will not take the place of years of experience, but they will make the student more adaptable and his general library service more intelligent. The time spent in actual practise amounts to about three and a half months, counting seven hours to a working day, and this is more valuable, because more varied, than if taken in three consecutive months in any one library. Moreover, the library school student has the benefit of comparative study, while the apprentice becomes skillful in the ways of one library only. Although stress is laid upon simplicity and economy, methods are taught to enable students to work in large libraries where bibliographic exactness is required. Emphasis is laid upon the extension of the activities of the public library, and upon the importance of cooperation between the library and the schools and other educational agencies.

A student in any other school or college of the University of Illinois may elect any course for which he is prepared. These courses will help students in general reading, in research work, in

club work, as high school teachers, or as members of a library committee or a board of trustees. The school also offers a course of eighteen hours on the use of the library and the ordinary reference books, which will help in general reading or study.

### ENTRANCE REQUIREMENTS

Admission to the Library School is conditioned upon the presentation of credentials showing that the applicant holds a bachelor's degree in arts or science from the University of Illinois or has had other equivalent training.

Application blanks for admission may be secured from the Director of the School, and these, filled out, should be filed, together with such documentary material as the candidate may offer, showing qualifications for admission, not later than the registration days in September. It is to the candidate's interest to present the application and certificates early, in order that the question of admission may be settled before he comes to the University.

### PROPOSED PRELIMINARY COURSE

Undergraduates who intend, on the completion of their college work, to apply for admission to the Library School, are requested to select their courses so as to conform in general to the following recommended program of studies preparatory to library work.

#### *Proposed Preliminary Course*

English literature, 5\*; rhetoric, 2

Latin, 4, in addition to four years of high school Latin

German, 6, in addition to two years of high school German

French, 4, in addition to two years of high school French

Languages begun in college instead of in the high school should be continued for a longer period.

Medieval and modern European history, 3; history of England, 3; history of the United States, 3

Economics, 3; political science, 2; sociology, 3

Philosophy, 2; general psychology, 2

Zoology, 3; botany, 2; chemistry or physics, 3

The total of this work is 100 semester hours, leaving the equivalent of one year of a four-year course free for work in other subjects or for more work in the subjects named.

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\*The figures after each subject indicate the minimum number of lecture or recitation hours a week which the student should devote to that subject throughout one college year.



## ADVANCED STANDING

College graduates who have had approved library experience or who have attended other library schools may be accorded advanced standing by securing credit for some of the courses required for graduation. After satisfying all entrance requirements and after matriculation, the applicant for advanced standing may secure such credit either by examination or by transfer of credits from another institution offering courses in library economy.

## SPECIAL STUDENTS

It is the practise of this School to admit as special students only those mature persons who, tho unable to meet the formal requirements for entrance, are substantially prepared for thoro and advanced work. Such persons must present evidence of possessing the requisite information and ability to pursue profitably, as special students, the chosen subjects, and some substitute for the regular requirements for entrance, such as approved library or teaching experience, foreign travel, etc. Preference will be given to those already engaged in library work, especially in Illinois, who may desire more adequate training in particular subjects.

## LIBRARY VISITS AND FIELD WORK

Each year all the students in the School visit the libraries, and certain of the book binderies, book stores, and printing establishments of either Chicago and vicinity or St. Louis and vicinity. During this visit, which occupies one week, the students are accompanied by a member of the faculty.

In order to assure a varied library experience, each student in the senior year is required to spend one month in an assigned public library, working, as far as practicable, under the same conditions as a member of the staff of that library.

## SCHEDULE OF COURSE

The course is two years in length. For graduation a student must receive credit for all courses except those marked with an asterisk (\*), which are elective. The degree of Bachelor of Library Science is conferred on a student who has completed the required work in the two years' course, and has received credit in courses amounting to 65 hours.

## JUNIOR YEAR

## FIRST SEMESTER

- 2<sup>1</sup> Reference work (3 hrs.)
- 3 Selection of books (2 hrs.)
- 4 Practise work, 4 hours per week (2 hrs.)
- 16 Order, accession, and shelf work (2 hrs.)
- 17 Classification and book numbers (3 hrs.)
- 18 Cataloging (3 hrs.)
- 23 Library administration and current library literature (1 hr.)

## SECOND SEMESTER

- 2<sup>1</sup> Reference work (3 hrs.)
- 3 Selection of books (2 hrs.)
- 4 Practise work, 4 hours per week (2 hrs.)
- 7 History of libraries (2 hrs.)
- 19 Trade bibliography (1 hr.)
- 20 Loan department (1 hr.)
- 21 Printing, binding, indexing (2 hrs.)
- 22 Library extension (3 hrs.)
- 23 Library administration and current library literature (1 hr.)

## SENIOR YEAR

- 6 Subject bibliography (2 hrs.)
- 8 \*Advanced reference work (2 hrs.)
- 10 Practice work, 8 hours per week (4 hrs.)
- 13 Public documents (2 hrs.)
- 15 Seminar (2 hrs.)
- 24 Selection of books (2 hrs.)
- 26 Library administration (3 hrs.)
- 27 Bibliographical institutions (1 hr.)

- 6 Subject bibliography (2 hrs.)
- 9 Bookmaking (2 hrs.)
- 10 Practise work, 8 hours per week (4 hrs.)
- 13 \*Public documents (2 hrs.)
- 15 Seminar (2 hrs.)
- 24 Selection of books (2 hrs.)
- 25 Advanced classification and cataloging (1 hr.)
- 26 Library administration (3 hrs.)
- 28 \*Practise work in various departments of the library (1 to 4 hrs.)

## LIBRARY CLUB

Any member of the Library School faculty or of the staff of the University Library and any student in the Library School may become a member. Six meetings are held each year to discuss professional questions, and for social purposes.

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<sup>1</sup>The numbers in these columns refer to the Courses in Library Science in the General Description of Courses.



# THE SCHOOL OF MUSIC

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For *admission* to the School of Music, see the general statement of entrance requirements of the University, page 88. For *fees*, see page 149. For the *faculty* of the School of Music and descriptions of the *courses* in Music, see under "Music" in the "General Description of Courses," Part III.

## GENERAL STATEMENT

The School of Music offers regular courses leading to the degree of Bachelor of Music, and a teacher's certificate in public school music.

Students who are not working for the degree in music may receive a statement from their instructors upon completing not less than one year of college work.

Classes in ear training meet twice each week. The fundamental principles of music notation are studied thoroly, and the ear is trained to recognize intervals, chords, etc., so that the student may eventually think music. Music students are required to attend these classes.

The sight-singing classes meet twice each week. This work is required of music students.

Choral, orchestral, and ensemble work is required of all students who are sufficiently advanced.

All students majoring in a practical subject are required to take Music 28 (Recital).

A series of lectures and recitals is given each year. Only artists of the best reputation appear. Music students are admitted free and are required to attend.

The instructors in the School of Music give recitals and lectures on musical subjects during the year.

The courses in the history of music and musical theory, as well as the work in the University Orchestra and the University Choral Society, may be taken by students in other departments without fee.

## REQUIREMENTS FOR GRADUATION

Candidates for the degree of Bachelor of Music must offer credit for 130 semester hours, including the prescribed subjects named below, together with an acceptable thesis on a topic related to music.

| FIRST SEMESTER                                     |       | FIRST YEAR                                         |       | SECOND SEMESTER                                    |       |
|----------------------------------------------------|-------|----------------------------------------------------|-------|----------------------------------------------------|-------|
|                                                    | S. H. |                                                    | S. H. |                                                    | S. H. |
| Music 2, Harmony.....                              | 2     | Music 2, Harmony.....                              | 2     | Music 2, Harmony.....                              | 2     |
| Music 7, 12 or 17, Piano, Voice, or Violin .....   | 6     | Music 7, 12 or 17, Piano, Voice, or Violin .....   | 6     | Music 7, 12 or 17, Piano, Voice, or Violin .....   | 6     |
| Music 23a, Ear Training.....                       | 3     | Music 23a, Ear Training.....                       | 3     | Music 23a, Ear Training.....                       | 3     |
| *Rhet. 1, Rhetoric and Themes.....                 | 3     | Rhet. 1, Rhetoric and Themes.....                  | 3     | Rhet. 1, Rhetoric and Themes.....                  | 3     |
| Foreign language, French, German, or Italian.....  | 4     | Foreign language, French, German, or Italian.....  | 4     | Foreign language, French, German, or Italian.....  | 4     |
| Phys. Tr. 7, Gymnasium (women).....                | 1     | Phys. Tr. 7, Gymnasium (women).....                | 1     | Phys. Tr. 7, Gymnasium (women).....                | 1     |
| Phys. Tr. 9, Hygiene (women).....                  | 1     | Phys. Tr. 1, Gymnasium (men).....                  | 1     | Phys. Tr. 1, Gymnasium (men).....                  | 1     |
| Phys. Tr. 1, Gymnasium (men).....                  | 1     | Mil. 2, Drill (men).....                           | 1     | Mil. 2, Drill (men).....                           | 1     |
| Phys. Tr. 1a, Hygiene (men).....                   | 1     | Mil. 1, Drill Regulations (men).....               | 1     | Mil. 1, Drill Regulations (men).....               | 1     |
| Mil. 2, Drill (men).....                           | 1     |                                                    |       |                                                    |       |
| Total, Men.....                                    | 17    | Total, Men.....                                    | 18    | Total, Men.....                                    | 18    |
| Total, Women.....                                  | 17    | Total, Women.....                                  | 16    | Total, Women.....                                  | 16    |
|                                                    |       | SECOND YEAR                                        |       |                                                    |       |
| Music 1, History of Music.....                     | 2     | Music 1, History of Music.....                     | 2     | Music 1, History of Music.....                     | 2     |
| Music 3, Advanced Harmony.....                     | 3     | Music 3, Advanced Harmony.....                     | 3     | Music 3, Advanced Harmony.....                     | 3     |
| Music 8, 13, or 18, Piano, Voice, or Violin .....  | 6     | Music 8, 13, or 18, Piano, Voice, or Violin .....  | 6     | Music 8, 13, or 18, Piano, Voice, or Violin .....  | 6     |
| Music 23b, Ear Training.....                       | 1     | Music 23b, Ear Training.....                       | 1     | Music 23b, Ear Training.....                       | 1     |
| Music 24a, Sight Singing.....                      | 1     | Music 24a, Sight Singing.....                      | 1     | Music 24a, Sight Singing.....                      | 1     |
| Foreign language, French, German, or Italian ..... | 4     | Foreign language, French, German, or Italian ..... | 4     | Foreign language, French, German, or Italian ..... | 4     |
| Mil. 2, Drill (men).....                           | 1     | Mil. 2, Drill (men).....                           | 1     | Mil. 2, Drill (men).....                           | 1     |
| Total, Men .....                                   | 17    | Total, Men.....                                    | 17    | Total, Men.....                                    | 17    |
| Total, Women.....                                  | 16    | Total, Women .....                                 | 16    | Total, Women .....                                 | 16    |
|                                                    |       | THIRD YEAR                                         |       |                                                    |       |
| Music 4, Counterpoint, Canon, and Fugue .....      | 3     | Music 4, Counterpoint, Canon, and Fugue .....      | 3     | Music 4, Counterpoint, Canon, and Fugue .....      | 3     |
| Music 9, 14 or 19, Piano, Voice, or Violin .....   | 6     | Music 9, 14 or 19, Piano, Voice, or Violin .....   | 6     | Music 9, 14 or 19, Piano, Voice, or Violin .....   | 6     |
| Music 24b, Sight Singing.....                      | 1     | Music 24b, Sight Singing.....                      | 1     | Music 24b, Sight Singing.....                      | 1     |
| Education 1, Principles.....                       | 3     | Music 5a, Acoustics.....                           | 1     | Music 5a, Acoustics.....                           | 1     |
| English 1, Survey of English Literature .....      | 4     | English 1, Survey of English Literature .....      | 4     | English 1, Survey of English Literature .....      | 4     |
| Total .....                                        | 17    | Total .....                                        | 15    | Total .....                                        | 15    |
|                                                    |       | FOURTH YEAR                                        |       |                                                    |       |
| Music 5, General Theory, Free Composition .....    | 2     | Music 5, General Theory, Free Composition .....    | 2     | Music 5, General Theory, Free Composition .....    | 2     |
| Music 5a, Acoustics.....                           | 1     | Music 10, 15 or 20, Piano, Voice, or Violin .....  | 6     | Music 10, 15 or 20, Piano, Voice, or Violin .....  | 6     |
| Music 10, 15 or 20, Piano, Voice, or Violin.....   | 6     | Music 7a, 12a, or 17a, Minor Subject .....         | 2     | Music 7a, 12a, or 17a, Minor Subject .....         | 2     |
| Music 7a, 12a, or 17a, Minor Subject .....         | 2     | Music 28, Recital.....                             | 3     | Music 28, Recital.....                             | 3     |
| Music 28, Recital.....                             | 3     |                                                    |       |                                                    |       |
| English 4, English Versification.....              | 3     |                                                    |       |                                                    |       |
| Total .....                                        | 17    | Total .....                                        | 13    | Total .....                                        | 13    |

\*Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric 1 may be excused from the first semester's work. See page 95.



*In Addition, for Women:* 4 hours elective, to make up the prescribed total of 130 hours. These four extra credits may be taken at any time; the election made must be approved by the student's adviser.

Courses 7 to 20, include regular attendance in Music 21 (Orchestra), Music 22 (Choral Society), and Music 27 (Ensemble Class), unless a student is excused by the Director of the School of Music.

### COURSE IN PUBLIC SCHOOL MUSIC

The aim of the Course in Public School Music is to prepare competent teachers and supervisors of music for the public schools. Students completing the course are granted teachers' certificates. An opportunity for practise teaching is offered. The course is one year in length, and comprises the following prescribed subjects:

| Course in Public School Music                           |                |
|---------------------------------------------------------|----------------|
| Music 1—History of Music.....                           | 4 hours        |
| Music 2—Harmony .....                                   | 4 hours        |
| Music 23a—Ear Training.....                             | 2 hours        |
| Music 24a—Sight Singing.....                            | 2 hours        |
| Music 25—Methods of Teaching.....                       | 8 hours        |
| Practical Music, major, Piano or Voice (7 or 12).....   | 12 hours       |
| Practical Music, minor, Voice or Piano (12a or 7a)..... | 4 hours        |
|                                                         | <hr/> 36 hours |

Advanced students may satisfy a part of the foregoing requirements by examination; in no case, however, is a student permitted to take less than 30 hours of work.

### MUSICAL ORGANIZATIONS

*The University Choral and Orchestral Society* is conducted by the Director of the School of Music, and gives a series of concerts throughout the year. The orchestra meets for two hours' rehearsal once a week; it is open to all students who qualify for membership. The chorus meets once a week for rehearsal of choral works. Singers not connected with the University are admitted by examination.

*The Military Band* is conducted by the instructor in band instruments. Besides giving several concerts during the year, it furnishes music for regimental formations and ceremonies and other occasions as required by the President of the University. Membership is decided by competitive examination. A Second Band is also conducted, in order that all students who play band instruments or-

dinarily well may have an opportunity to play in a band. Each full term of service in the Band counts for one term of the required work in Military Science. After obtaining credit for four semesters' work those who are continued in the Band for not less than one year are paid an amount equal to the term, or "incidental," fees of the year.



# THE SCHOOL OF EDUCATION

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## FACULTY

The faculty of the School of Education includes all those instructors who offer courses primarily intended for prospective teachers.

## GENERAL STATEMENT

It is the purpose of the School to bring together all the resources of the University which contribute in a professional way to the preparation of three classes of workers in the public school system:

1. The High School Principal and the High School Teacher.—The School provides for the needs of the high school principal by supplying a general knowledge of the various subjects of the high school curriculum, as well as a knowledge of organization and administration as applied to the secondary school; and for those of the departmental specialist by supplying a more extended knowledge of a few subjects.

Funds have been appropriated and the site purchased for a building to house a model secondary school which will be used as a training school for teachers.

2. The Supervisor of Special Subjects.—Manual training, agriculture, domestic science, music, drawing, and physical training, as now taught in the better school systems, are subjects which demand specially trained supervisors; the facilities of the University for instruction in these subjects are thoroly utilized.

3. The School Superintendent.—Demanding, as he does, a knowledge of the development of school systems, a keen insight into pedagogical problems, and an appreciation of child-nature, the superintendent needs extended preparation; this the School of Education is prepared to give.

## COURSE

The course of study of the School of Education is made up of offerings selected from the work of the various departments of in-

struction in the University. The course is elective except for the graduation requirements of the college in which the student is registered. Certain subjects are, however, required of all students who wish to be officially recommended by the University for high school positions. The work is arranged in four groups:

(a) Courses in education, psychology, and sociology bearing directly upon the profession of the teacher.

(b) Courses especially intended for teachers, offered by various departments of the University.

(c) Suggested programs for students preparing to become special teachers and supervisors of agriculture, domestic science, drawing, music, or physical training.

(d) Suggested programs for continuous and progressive work in subjects represented in the high school curriculum.

### SPECIAL LECTURES

A number of special lectures are offered each year by the School of Education.

### COMMITTEE ON APPOINTMENT OF TEACHERS

This committee has in charge the naming of candidates from among graduates of the University for positions as teachers or supervisors in public schools, colleges, and technical schools.

The Director of the School of Education is chairman of this committee, and the official nominations of students and graduates of the University to public school positions are made through his office.

The following resolution was adopted by the University Senate, June 3, 1912:

1. The University Committee on Appointments is authorized to issue its recommendation, signed by the committee as the agent of the University, in all cases in which it is satisfied with the student's scholarship and ability to teach. The committee shall regard the scholarship requirements as met if, in addition to carrying the professional courses mentioned in the next paragraph, the student has passed with an average grade of 85 in the courses necessary to constitute a major in the principal subject which he wishes to teach, and in courses aggregating a minimum varying from six to twelve semester hours (according to subject, and at the discretion of the committee) in each of the other subjects for which he wishes to be recommended. The committee shall, however, in each case secure the written opinion of the departments concerned, of the scholar-



ship of the applicant, and shall view the evidence of scholarship as shown by the records in the light of this opinion; and if there appear to the committee to be reasons which, from their nature, can not be shown by mere records, for questioning the scholastic ability of the student, the committee may, in its discretion, withhold the recommendation.

2. A candidate must have successfully completed the following courses in the department of education:

a. An introductory course which shall aim (1) to acquaint the prospective teacher with the public-school system as it exists today in the United States, and (2) to present a brief outline of the principles of education. (A three-hour course.)

b. A course in the technique of teaching, accompanied by observation of class-room work in secondary schools, and including a discussion of class-management (routine and discipline), the elements of school hygiene, and the types of school exercises. (A three-hour course.)

3. The Director of the School of Education may, in his discretion, excuse a candidate from the professional courses outlined above (1) if the candidate is a normal school graduate or has taken equivalent courses in a normal school or in another college or university; or (2) if the candidate has had at least one year of successful teaching experience. If, at the time of registration with the Committee on Appointments, the candidate has not completed one of the required courses but is enrolled at that time in the course, a committee recommendation may be given with the approval of the instructor in charge of the course.

The courses mentioned in Section 2 of the above resolutions are (a) Education 1, Introduction to Education, which is now offered as a three-hour course during either the first or the second semester; and (b) Education 10, Observation and Technique of Teaching, a three-hour course. Education 10 may be taken either the first or the second semester.

# THE SCHOOL OF RAILWAY ENGINEERING AND ADMINISTRATION

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## GENERAL STATEMENT

The School of Railway Engineering and Administration has been established to prepare men broadly for the technical and administrative departments of railroads. The work offered is arranged in five different courses, any one of which is designed to occupy four years' time. The courses are:

- Railway Civil Engineering
- Railway Mechanical Engineering
- Railway Electrical Engineering
- Railway Transportation
- Railway Traffic and Accounting

The first three of these courses are administered by the College of Engineering, and a description of them appears with that of other courses offered by this College. Students are admitted to them under the same conditions as to other courses of the College of Engineering, and they have available for their use all of the library, drafting-room, and laboratory facilities which constitute the equipment of this College. The last two courses are administered by the College of Liberal Arts and Sciences; they are described in detail in connection with the other courses of this College. Students are admitted to them under the same conditions as to other courses of the College of Liberal Arts and Sciences.

It is the purpose of each of these courses to add to the broad foundation of discipline and training which should be supplied by every college course such specialized training as will be most useful to those who look forward to careers in railway service.



## MILITARY SCIENCE

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The military instruction is under the charge of an officer of the United States Army. The course as a whole has special reference to the duties of officers of the line. A full supply of arms and ammunition is furnished by the War Department, including 1,200 U. S. magazine rifles (model 1898) and accouterments, two field pieces of artillery, and full equipment for a signal corps and a hospital corps.

Every male student under twenty-five years of age, able to perform military duty, and not excused for sufficient cause, is required to drill twice each week until he has gained credit for four semester hours. He is also required to study drill regulations for infantry, and to recite upon the text once a week until he gains credit for one semester hour.

The practical instruction begins as soon as possible after a student enters the University. The standings in study and drill are placed on record with other class credits; one semester of recitations and drill counts two hours, and the three remaining semesters of drill three hours. This work is required for graduation in all the undergraduate colleges of the University.

The regiment, four battalions of four companies each, is composed mainly of the members of the freshman and sophomore classes. The non-commissioned officers are usually selected from the sophomore class, the lieutenants from the junior class, and the field officers and captains from the senior class and graduate school. There are 1,650 cadets and seventy-one commissioned officers in the regiment.

Artillery and signal detachments are organized mainly from those students of the second year or sophomore class who have made more than an average standing in the work of the previous year.

A special military scholarship, good for one year, is open to each student who attains the grade of a commissioned officer; its value is paid to the holder at the close of the year. Appointments in the regiment are made on the nomination of the commandant of cadets confirmed by the Council of Administration.

Towards the close of the year a committee appointed by the President of the University examines candidates for nomination to the Governor of the State to receive commissions as brevet captains in the State militia. Candidates must be members of the senior class in full standing at the time of this examination; must have completed the course of military studies; must have served two semesters as commissioned officers; and must be approved by the Council of Administration as having good reputations as scholars, officers, and gentlemen.

The uniform is of cadet gray, the coat trimmed with black mohair braid, the trousers with black cloth stripe, cut after the U. S. Army pattern. During warm weather a blue flannel shirt is worn instead of the coat. In order that all uniforms worn at the University may be, in quality, make, and finish, in strict accordance with the specifications adopted by the Board of Trustees, all students enrolled in the military department are required to obtain them from that firm only that may, for the time being, be under agreement and bond with the Trustees to furnish said uniforms at a stated price and of standard quality.

The University military band is composed of students, and every full term of service therein is counted as one term of drill. Those who play in the band after having earned their five military credits necessary for graduation have their incidental fees remitted at the end of each year. Besides giving several concerts during the year, the band furnishes music for regimental formations and ceremonies and other occasions as required by the President of the University. Membership is decided by competitive examination.



# PHYSICAL TRAINING

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## FOR MEN

The object of the work in this department is to preserve and improve the bodily health of the students by rational exercises and to teach proper intercollegiate sports. Regular classes are formed in swimming and fencing and for drill on the various gymnasium appliances. Lectures are given on personal hygiene.

All competitive athletic games are under the direct supervision of the Director of Physical Training, and an examination is required to show that membership on any team will not cause injury, but will tend to improve the physical condition. No student whose class work is unsatisfactory is allowed to play on a University team.

For a description of the Men's Gymnasium, see page 72.

## FOR WOMEN

The object of the work of this department is to preserve and improve the general health, carriage, and co-ordination of the young women of the University. Each student is given a physical examination; suitable exercise is prescribed and advice given.

The class work embraces corrective, hygienic, and recreative exercise, including free and light gymnastics, marching, fancy steps, games, and Maypole. Tennis, hockey, basket-ball, volleyball, German-ball, and quoits are played in season.

The gymnasium is open at certain hours and under suitable restrictions to all women of the University. The uniform consists of black serge bloomers, white cotton blouse, black tie, and gymnasium shoes.

The swimming pool is open daily, except Saturday, from 10 to 12 a. m. and from 2 to 5 p. m. The regulation swimming suit of one piece must be made of either denim or mohair.

For a description of the Women's Gymnasium, see under Woman's Building, page 72.

## THE SUMMER SESSION

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EDMUND JANES JAMES, Ph.D., LL.D., *President of The University*  
WILLIAM CHANDLER BAGLEY, Ph.D., *Director of The Summer Session*

### STAFF OF INSTRUCTION—1913

JOHN ADAMS, A.M., F.C.P., *Professor of Education, University of London*

LEWIS FLINT ANDERSON, Ph.D., *Assistant Professor of Education*

LEONARD PORTER AYRES, Ph.D., *Russell Sage Foundation, New York City*

WILLIAM CHANDLER BAGLEY, Ph.D., *Professor of Education*

CLARENCE WILLIAM BALKE, Ph.D., *Assistant Professor of Inorganic Chemistry*

DANIEL OTIS BARTO, B.S., *Associate in Poultry Husbandry*

PHILIP STEPHAN BARTO, A.M., *Assistant in German*

HERBERT JEWETT BARTON, A.M., *Professor of the Latin Language and Literature*

EDWARD BARTOW, Ph.D., *Professor of Sanitary Chemistry*

FREDERICK CHARLES BAUER, B.S., *Instructor in Soil Fertility*

JAMES EDGAR BELL, B.S., *Assistant in Chemistry*

ALICE BIESTER, A.B., *Assistant in Household Science*

SIMEON JAMES BOLE, A.M., *Instructor in Pomology and Assistant in Plant Breeding*

ROBERT LACY BORGER, Ph.D., *Associate in Mathematics*

WALTER ALBERT BUCHEN, A.B., *Assistant in English*

DAVID HOBART CARNAHAN, Ph.D., *Associate Professor of Romance Languages*

FREDERICK WALTON CARPENTER, Ph.D., *Assistant Professor of Zoology*

GEORGE ERNEST CARSCALLEN, A.M., *Assistant in Mathematics*



- LOTUS DELTA COFFMAN, Ph.D., *Professor of Education*  
ARTHUR CHARLES COLE, Ph.D., *Instructor in History*  
WILLIAM WALTER CORT, A.M., *Instructor in Biology, Colorado College*  
JAMES PERRY COYLE, A.B., *Assistant in Physics*  
ARTHUR ROBERT CRATHORNE, Ph.D., *Associate in Mathematics*  
HAROLD FORDYCE CROOKS, *Instructor in Swimming*  
CLARENCE GEORGE DERICK, Ph.D., *Associate in Chemistry*  
DANIEL KILHAM DODGE, Ph.D., *Professor of the English Language and Literature*  
GEORGE WILLIAM DOWRIE, A.M., *Assistant in Economics*  
CHARLES ELMER DURST, M.S., *Assistant in Olericulture*  
FREDERICK ELLIS, *Instructor in Wood Working*  
NEWTON EDWARD ENSIGN, A.B., B.S., *Instructor in Theoretical and Applied Mechanics* ..  
STANLEY PRINCE FARWELL, M.S., *Instructor in Theoretical and Applied Mechanics*  
GEORGIA FLEMING, B.S., *Assistant in Household Science*  
JUSTUS WATSON FOLSOM, D.Sc., *Assistant Professor of Entomology*  
RAYMOND GARFIELD GETTELL, Ph.D., *Professor of Political Science, Trinity College, Hartford, Connecticut*  
ERNEST MILTON HALLIDAY, A.B., LL.B., *Associate in English*  
EDWARD CARY HAYES, Ph.D., *Professor of Sociology*  
FELIX EMIL HELD, A.M., *Assistant in German*  
MARY HILL, *Assistant in Art and Design*  
B SMITH HOPKINS, Ph.D., *Instructor in Chemistry*  
CHARLES FREDERICK HOTTES, Ph.D., *Assistant Professor of Plant Physiology*  
HARRIE STUART VEDDER JONES, Ph.D., *Assistant Professor of English*  
LLOYD THEODORE JONES, A.M., *Assistant in Physics*  
OLIVER KAMM, B.S., *Assistant in Chemistry*  
ARMIN HAJMAN KOLLER, Ph.D., *Instructor in German*  
PHILIP AUGUSTUS LEHENBAUER, A.M., *Assistant in Botany*  
OTTO EDUARD LESSING, Ph.D., *Associate Professor of German*

MARK H LIDDELL, *formerly Professor of English, University of Texas*

INGEBRIGHT L LILLEHEI, A.M., *Assistant in Romance Languages*

RUTH MARSHALL, Ph.D., *Professor of Biology and Head of the Department of Biological Science, Rockford College*

OSCAR ROSS MARTIN, A.B., *Assistant in Economics*

WILFORD STANTON MILLER, A. M., *Assistant in Education and Secretary of the School of Education*

CHARLES HENRY MILLS, D.Mus., F.R.C.O., F.A.G.O., *Professor of Music*

ARETAS WILBUR NOLAN, A.B., M.S., *Assistant Professor of Agricultural Extension*

WILLIAM ABBOTT OLDFATHER, Ph.D., *Associate Professor of Classics*

JOSEPH C PARK, *Director of Industrial Education, Oswego, New York*

MAUD EDNA PARSONS, A.B., *Assistant in Household Science and Director of Lunch Room*

DAVID LESLIE PATTERSON, B.S., *Associate Professor of History, University of Kansas*

HARRY GILBERT PAUL, Ph.D., *Assistant Professor of the English Language and Literature*

ALVAH PETERSON, B.S., *Assistant in Entomology*

OSCAR ALAN RANDOLPH, B.S., *Assistant in Physics*

MAURICE HENRY ROBINSON, Ph.D., *Professor of Industry and Transportation*

SIDNEY ARCHIE ROWLAND, A.B., *Assistant in Mathematics*

HAROLD ORDWAY RUGG, B.S., C.E., *Instructor in General Engineering Drawing*

GEORGE RUTLEDGE, A.M., *Research Assistant in Mathematics*

DAVID LEONARD SCROGGIN, *Instructor in Machine Shop Practise*

GEORGE WALLACE SEARS, M.S., *Assistant in Chemistry*

FRED B SEELY, B.S., *Instructor in Theoretical and Applied Mechanics*

WILLIAM HERSCHEL SMITH, M.S., *Instructor in Animal Husbandry*

EARLE KENNETH STRACHAN, Ph.D., *Instructor in Chemistry*

ARTHUR JERROLD TIEJE, Ph.D., *Instructor in English*



EARLE HORACE WARNER, A.B., *Assistant in Physics*

HENRY CHARLES PAUL WEBER, Ph.D., *Associate in Chemistry*

ELMER HOWARD WILLIAMS, Ph.D., *Associate in Physics*

RUTH MARSHALL, Ph.D., *Instructor in Ornithology*

### GENERAL STATEMENT

The Summer Session of the University of Illinois for 1913 opened on June 16, and closed on August 8, making a term of *eight weeks*. The Summer Session of 1914 will open on June 22, and close on August 14.

All of the courses extend through the eight weeks. Students who wish to remain for only six weeks may obtain from the Director of the Session a certificate of such attendance, but university credit will not be given for six-weeks courses.

Students may register for courses aggregating eight credit hours or less.

The primary purpose of the Summer Session is to meet the needs of teachers in the public schools who wish to spend a part of the summer vacation in study or investigation. The greater number of courses offered are designed particularly for high school teachers, supervising officers, and teachers of special subjects (art, music, manual training, domestic science, agriculture, etc.), and for college instructors, school supervisors, and principals who are working for advanced degrees. At the same time, students who may not fall within these groups are welcomed, and several courses of a more general nature are provided to meet their needs.

### PREPARATION FOR STATE TEACHERS' CERTIFICATES

To teachers who desire to make thoro preparation for the State certificate examinations, the Summer Session offers marked advantages, especially in connection with the professional subjects.

The examination will be held July 21 and 22, 1914. Candidates for the "General Certificate" must take the examination in Springfield. The "State Elementary-School Certificate," the "State High-School Certificate," and the "State Supervisory Certificate" may be obtained by examinations held on the above dates at the University of Illinois, *provided that at least fifteen applicants notify the State Superintendent, prior to June 10, 1914, of their wish to take the examination here*. Further information concerning the examinations

may be obtained by addressing Hon. F. G. Blair, State Superintendent of Public Instruction, Springfield, Illinois.

### GRADUATE WORK IN THE SUMMER SESSION

During the past three years the Summer Session has placed increasing emphasis upon graduate courses leading to the master's degree. The various departments which are closely related to high school teaching and to educational administration have been selected as the centers of this emphasis. An attempt is made to vary the graduate offerings from year to year so that advanced students each year may find acceptable work in their chosen fields.

The normal requirement for the master's degree is full work of graduate grade, satisfactorily completed, through one year of residence. This means a residence of thirty-six weeks at the University. Qualified graduate students may fulfill this residence requirement in four summer sessions of eight weeks each and an additional four weeks' study at the University under the direction of the person in charge of the major work. Thus a student, by working at the University for one week before or after each session under the direction of the professor in charge of his major subject, may earn the master's degree in four summers.

In certain cases it will be possible for the graduate student to complete the last fourth of his residence requirement under a leave of absence. This privilege may be granted in the event that the student is able to take advantage of opportunities for research and investigation that are not afforded in the University community. Superintendents, principals, and class-room teachers frequently find it possible to carry on investigations in connection with their school work. There are, for example, numerous problems of school administration and of teaching for which the public school itself forms the only available "laboratory." Where the investigation of such problems is prosecuted with the co-operation of a department of the University, it may be possible to count the work toward the master's degree.

### SUMMER COURSES IN LIBRARY TRAINING

Beginning Monday, June 22, 1913, and continuing for six weeks the Library School conducted a Summer Session *to which were admitted only those actually employed as librarians or library assistants, or under definite appointment to serve in such positions.* The



curriculum is planned to meet especially the needs of workers in public libraries and in high school libraries of Illinois, and no tuition fee is charged students entering from this State; students entering from libraries in other states pay a tuition fee of \$12. The work is under the general direction of the faculty of the Library School.

### FEEES

A tuition fee of twelve dollars (\$12) is required of all students in regular attendance at the Session. This entitles one to admission to regular courses and to all special lectures. An extra laboratory fee is charged in some courses for materials used. Any single course may be taken for a fee of six dollars (\$6) and the laboratory fee, if there be any in connection with the course taken. A single course is understood to mean not more than two and one-half credit hours.

### SCHOLARSHIPS

By ruling of the Board of Trustees of the University, all high school teachers in Illinois, and all other teachers in the State who are qualified to matriculate in the University as regular students, are entitled to Summer Session scholarships, exempting them from payment of the tuition fee. To matriculate regularly in the University, one must either pass the entrance examinations, or present a certificate from an accredited high school or other evidence showing the completion of the requisite amount of preparatory work.

By a more recent resolution of the Board of Trustees, the scholarship privilege is extended to persons graduating from the Illinois State normal schools during the academic year preceding the Session in which the scholarship is desired and to persons (otherwise qualified) who have not been teachers, but who are under contract to teach in the State during the coming year.

Application blanks for scholarships may be obtained from the Director.

### REGISTRATION

Students will present themselves for registration on Monday, June 22, 1914.

### DESCRIPTION OF COURSES—SUMMER SESSION OF 1913

#### EXPLANATION OF ABBREVIATIONS

"S," which is prefixed to each of the courses offered, means "summer," and is used to distinguish such courses from those of the same number offered during the regular college year.

The number in parenthesis after each course indicates the number of hours of credit given. For a definition of the term "credit hour," see page 307.

There are usually two lectures, recitations, or laboratory periods for each credit hour.

*Unless otherwise stated* each course extends through the eight weeks of the session.

The asterisk (\*) indicates those courses for which graduate credit is granted. Only courses so marked count toward the master's degree. The credit in hours indicated for such courses has reference only to undergraduate students. Graduate students are not granted credit in terms of semester hours.

## ACCOUNTANCY

(See ECONOMICS)

## AGRICULTURE

Assistant Professor NOLAN, Mr. BARTO, Mr. BAUER, Mr. SMITH,  
Mr. DURST, Mr. BOLE

The work in the summer session of the University is planned to meet the needs of teachers in the elementary and high schools, teaching agriculture. Courses in the elements of agriculture are outlined to cover suggestive work in high school agriculture.

S 1. FARM CROPS.—Classification of farm crops; detailed studies of the principal grain crops, and forage crops; enemies of farm crops; crop rotation; etc. (2½). Mr. BAUER

S 2. SOILS AND SOIL FERTILITY.—Soil conditions essential to plant growth; elements of plant food; sources and supply of nitrogen, organic matter, calcium, potassium, and phosphorus. The Illinois system of permanent agriculture. (2½). Mr. BAUER

S 3. HISTORY OF DOMESTIC ANIMALS.—Origin, development, and management of the various kinds of live stock. This course is designed primarily for secondary school teachers. (2½).

Mr. SMITH

S 4. FUNDAMENTALS OF LIVE STOCK JUDGING.—The names and location of external parts of the various kinds of live stock; the use of the score card; comparative judging as a method; breed identification; types of farm animals. (2½). Mr. SMITH



S 5. ORCHARD AND GARDEN.—Principles of orcharding; the home orchard from planting to bearing; caring for fruit trees; the home vegetable garden. (2½). Mr. DURST, Mr. BOLE

S 6. SPECIAL FARM PROBLEMS.—Poultry. Types and breeds of poultry; improving and fixing desired strains; care and feeding; poultry houses; raising young chicks. (2½). Mr. BARTO

S 7. SECONDARY AGRICULTURE.—One-year course. A general course in the elements of agriculture, designed to cover the work offered in a year's high school course. Type studies of farm crops, fruits, animals, soils, business, and special farm problems practical for school work. (2½). Assistant Professor NOLAN

S 8. AGRICULTURAL EDUCATION AND RURAL LIFE PROBLEMS.—Conferences and discussions of the problems of public school agriculture; the use of text-books, laboratory equipment, and lands; courses of study, extension activities, community work, and country life education. (1). Assistant Professor NOLAN

## ART AND DESIGN

Miss HILL

S 1. ELEMENTARY.—Form drawing from still life, cast, and nature; principles of outline and shading in pencil, charcoal, and crayon; lectures on the principles of perspective. (2). Miss HILL

S 2. LIGHT AND SHADE.—Shaded drawing in monochrome. (2). Miss HILL

*Prerequisite:* Art and Design 1.

S 4. WATER COLOR PAINTING.—Still life; flowers; landscapes. (3). Miss HILL

*Prerequisite:* Art and Design 1, 2.

S 20. ART FOR THE COMMON SCHOOLS.—The planning and execution of work in the several divisions of common school art study; design; black-board drawing. (2). Miss HILL

## BIOLOGY

(See BOTANY, ZOOLOGY, and ENTOMOLOGY)

## BOTANY

Assistant Professor HOTTES, Mr. LEHENBAUER

S 21. PLANT PHYSIOLOGY.—The more important physiological processes of plants. Text: Coulter, Barnes, and Cowles, Vol. 2. *A Text-book of Botany*. (Laboratory fee \$1.00.) (2).

Assistant Professor HOTTES, Mr. LEHENBAUER

*Prerequisite:* Entrance credit in botany or its equivalent.

S 22. BOTANICAL MICROTECHNIQUE.—Methods of collecting, fixing, and staining of algae and fungi, and the preparation of permanent slides; the treatment of woods and other hard tissues for sectioning; the preparation of permanent sections of leaves, stem, and root tips by the paraffin and celloidin processes; the methods of staining for a study of tissues and cell division. Text: Chamberlain's *Methods in Plant Histology*, third edition, 1911. (Laboratory fee \$2.00). (2)

Assistant Professor HOTTES, Mr. LEHENBAUER

*Prerequisite:* Botany S-21 or its equivalent.

S 23. HEREDITY AND EVOLUTION.—Organic evolution with special reference to variation, selection, and hybridization in plants; the variation and correlation in plant structures. Text: Lock's *Recent Progress in the Study of Variation, Heredity and Evolution*, new edition. (Laboratory fee \$1.00). (2).

Assistant Professor HOTTES

*Prerequisite:* 2 credit hours in botany or zoology.

#### COURSES FOR GRADUATES

\*S 101. CYTOLOGY.—The influence of external agents on the cell; investigation; reports and discussions of current literature and research results. (Laboratory fee \$1.50 to \$3.00.)

Assistant Professor HOTTES

\*S 102. PHYSIOLOGY.—The effects of external stimuli on growth and movement; reports and discussions of recent literature and research results. (Laboratory fee \$1.50.)

Assistant Professor HOTTES

#### CHEMISTRY

Assistant Professor BALKE, Dr. DERICK, Dr. WEBER, Dr. STRACHAN, Dr. HOPKINS, Mr. BELL, Mr. SEARS, Mr. KAMM.

NOTE:—Graduate students whose major subject is not chemistry or agriculture may take for their graduate work S 5a, S 9, S 9a, S 9b, S 14, S 13a, or S 31 and S 33. Students whose major subject is chemistry may take S 31, S 33 and S III.

S I. ELEMENTARY CHEMISTRY.—General inorganic chemistry; non-metallic elements. Illustrated lectures; recitations; laboratory. Text: Alexander Smith's *General Chemistry for Colleges*. (5).

Assistant Professor BALKE, Dr. HOPKINS, Mr. SEARS, Mr. KAMM



S 1a and S 1b. INORGANIC CHEMISTRY.—(For students who have had one year of high school chemistry, or inorganic chemistry for engineering students.). (4). Assistant Professor BALKE

S 2. DESCRIPTIVE INORGANIC CHEMISTRY.—(Continuation of S 1). The metallic elements, their compounds, and properties. Illustrated lectures; recitations. Alexander Smith's *General Chemistry for Colleges*. (2). Assistant Professor BALKE

*Prerequisite:* Chemistry 1.

S 3. QUALITATIVE ANALYSIS.—Lectures; recitations; laboratory. Noyes and Smith's *Qualitative Analysis*. (3). Dr. WEBER

*Prerequisite:* Chemistry 1.

\*S 5a. ELEMENTARY QUANTITATIVE ANALYSIS.—Gravimetric and volumetric methods; stoichiometrical relations; the fundamental laws of chemistry and their applications to quantitative analysis. Talbot's *Quantitative Chemical Analysis*. (5). Dr. STRACHAN

*Prerequisite:* Chemistry 1, 3.

\*S 9. ORGANIC CHEMISTRY.—The more typical and simple organic compounds; important classes of derivatives of carbon. Moore's *Outline of Organic Chemistry*. (3).

Dr. DERICK, Mr. KAMM

*Prerequisite:* Chemistry 2, 3.

\*S 9a.—ORGANIC SYNTHESIS.—The preparation of the typical compounds discussed in S 9. Noyes' *Organic Chemistry for the Laboratory*. (2). Dr. DERICK, Mr. KAMM

*Prerequisite:* S 9.

\*S 9b. ORGANIC SYNTHESIS.—Continuation of S 9a. Noyes' *Organic Chemistry for the Laboratory*. (2). Dr. DERICK, Mr. KAMM

*Prerequisite:* S 9a.

\*S 14. ORGANIC CHEMISTRY (advanced).—Lectures; recitations. Noyes' *Organic Chemistry*. (3) Dr. DERICK

*Prerequisite:* Chemistry S-9 or equivalent.

S 11 and \*S 111. RESEARCH.—Inorganic, physical, organic, or analytical chemistry.

Assistant Professor BALKE, Dr. DERICK, Dr. WEBER

(Subject to approval of Graduate School Faculty.)

\*S 13a. AGRICULTURAL ANALYSIS.—Gravimetric determination and separation of the more important constituents of soils, fertilizers, and agricultural products. Talbot's *Quantitative Chemical Analysis*. (5). Dr. STRACHAN

S 15. PHYSIOLOGICAL CHEMISTRY.—Food nutrients, the body tissues and fluids; the urine, both normal and pathological; the processes which take place in the animal body. Lectures; demonstrations; conferences; practical work. (Open to both graduates and undergraduates.) Hammarsten's *Text Book of Physiological Chemistry*; Hawk's *Practical Physiological Chemistry*. (5).

Mr. MACARTHUR

*Prerequisite:* Two years' work in chemistry.

S 17. TEACHERS' COURSE.—(1). Assistant Professor BALKE

\*S 31. ELEMENTARY PHYSICAL CHEMISTRY.—The more important principles and methods of physical chemistry and electro-chemistry; numerous problems. Lectures; recitations. (3). Mr. BELL

*Prerequisite:* Chemistry 1, 2, 3; Physics 1 or 2a; Mathematics 8a.

\*S 31a. ELEMENTARY PHYSICAL CHEMISTRY.—(3). Mr. BELL

*Prerequisite:* Chemistry 1, 2, 3; Physics 1 or 2a.

\*S 33.—ELEMENTARY PHYSICAL CHEMISTRY.—Molecular weight of gases and solutions; chemical equilibrium; the electrical conductivity of solutions; thermochemistry. (Laboratory to accompany course 31.) (2). Mr. BELL

*Prerequisite:* Chemistry 5a; Physics 26 or 3.

\*S 110. WATER SUPPLIES.—The sources of contamination of water supplies and the purification of water for potable or technical use. *Five times a week.* Professor BARTOW

## GENERAL ENGINEERING DRAWING

Mr. RUGG

S 1. ELEMENTS OF DRAFTING.—Freehand and mechanical lettering; practise in the use of instruments on standard set of working drawing plates; tracing, machine sketching, isometric and oblique projection, and perspective. (Required of all engineering students.) Miller's *Mechanical Drafting*. (4). Mr. RUGG

S 2. DESCRIPTIVE GEOMETRY.—Problems relating to the point, line, and plane; the properties of surfaces; intersections and developments of surfaces. Miller's *Descriptive Geometry*. (4).

Mr. RUGG



## ECONOMICS

(Including ACCOUNTANCY)

Professor ROBINSON, Mr. MARTIN, Mr. DOWRIE

S 2. PRINCIPLES OF ECONOMICS.—The general principles of Economics, with special reference to the needs of teachers, general readers, and university students. (2).

Professor ROBINSON, Mr. MARTIN

*Prerequisite:* Two years of university credit.

S 3. BANKING.—The history and principles of banking, with special reference to present conditions in the United States; banking reform. (3).

Mr. DOWRIE

*Prerequisite:* For university students, Economics 1; for others, the permission of the instructor.

S 25. COMMERCIAL LAW.—The chief principles underlying the law of contracts, negotiable instruments, agency, partnerships, insurance, etc. (This course is not accepted for credit for students in the courses in Business Administration.) (2).

Professor ROBINSON

S 26. COMMERCIAL GEOGRAPHY OR ECONOMIC RESOURCES AND PRODUCTS OF DIFFERENT COUNTRIES.—The more important products and industries of different countries, with special reference to the character and distribution of the resources and economic activities and products of the United States. (2).

Mr. DOWRIE

\*S 107. THE CORPORATION IN ECONOMIC EVOLUTION

Professor ROBINSON

## ACCOUNTANCY

S I, II. PRINCIPLES OF ACCOUNTANCY.—The accounting for various types of business organization, such as the partnership, corporation, etc.; the designing of accounting systems; the treatment of bad debts, goodwill, depreciation, suspense, secret reserves, and the like. *Open to teachers of bookkeeping* and those who have had the first semester of Accountancy I or its equivalent. (2½).

Mr. MARTIN

## EDUCATION AND PSYCHOLOGY

Professor BAGLEY, Professor COFFMAN, Professor ADAMS, Assistant Professor ANDERSON, Dr. AYRES, Mr. MILLER

(Courses S 7, S 13, S 20, S 22, S 24, S 125 are granted graduate credit upon the approval of the Executive Faculty of the Graduate School).

S 1. PRINCIPLES OF EDUCATION.—The function of education; formal and informal education; fundamental principles of physical and mental development and their relation to the art of teaching; a brief survey of standard methods of instruction. Bagley's *Educative Process*. (3). Mr. MILLER

S 6. HISTORY OF EDUCATION.—The development of educational theory and practise in their relation to the history of civilization. Monroe's *History of Education, Brief Course*. (2½).

Assistant Professor ANDERSON

S 9. EDUCATIONAL PSYCHOLOGY.—Elementary course. Especially designed to meet the needs of students preparing for the State-certificate examinations. Colvin and Bagley's *Human Behavior*. (2). Professor BAGLEY

S 15. SCHOOL HYGIENE.—The location and construction of school buildings; hygiene of lighting, heating, and ventilation; school furniture; hygiene of eyesight and hearing; fatigue; infectious diseases. (2). Professor BAGLEY

S 16. SOCIAL ASPECTS OF EDUCATION.—Need of a social point of view; social agencies and social forces in relation to the school; the social organization and the social mind of the school; the refractive power of the school; the school as a determinant of public opinion. (2). Professor COFFMAN

S 21. INSTRUCTION AND CONTROL OF INDIVIDUALS AND CLASSES.—Gradual adaptation of psychology to the needs of the teacher; child study and its danger; differences between individual and class instruction; factors in class instruction (last 4 weeks.) (1). Professor ADAMS

S 23. CURRENT EDUCATIONAL MOVEMENTS.—The important social and educational movements that are affecting public school methods and curricula; the health of school children; better adaptation of school work to the needs of the individual; the application of simple scientific methods to educational problems; the adaptation of school work to vocational needs. (1).

Dr. AYRES, Professor COFFMAN

\*S 7. HISTORY OF INDUSTRIAL EDUCATION.—The conditions affecting the relation of industrial to general education; the origin and development of school methods of trade instruction; the movement for giving industrial occupations a place in the curriculum of the general school. (1). Assistant Professor ANDERSON



\*S 13. EDUCATIONAL CLASSICS.—A critical and comparative study of the works on education, generally recognized as classics; the educational writings of Plato, Aristotle, Quintilian, Montaigne, Milton, Locke, Rousseau, Pestalozzi, Herbart, Froebel, Herbert Spencer, and others. (1½). Assistant Professor ANDERSON

\*S 20. SUPERVISION.—The limitations, types, functions, standards, and devices of supervision. Lectures, assigned readings, special investigations. (2). Professor COFFMAN

\*S 22. IDEALS AND THEIR PLACE IN EDUCATION.—Nature of mind; nature of knowledge; relation of mind to the external world; relation between sensation and perception in education; nature and origin of ideas; the laws of thought as thought, and their resolution into one primary necessity; consequent possibility of teaching; knowledge as moral organon. (Last 4 weeks.) (1). Professor ADAMS

\*S 24. THEORY AND PRACTISE IN THE MEASUREMENT OF EDUCATIONAL PROCESSES AND PRODUCTS.—The processes and applications of the newer scientific quantitative methods in education; simple methods of measuring educational processes in terms of educational results. (1). Dr. AYRES, Professor COFFMAN

\*S 125. EDUCATIONAL PSYCHOLOGY.—The monographic literature on the educational aspects of instincts, habits, memory, attention, and the higher thought processes. Professor BAGLEY

*Prerequisite:* Graduate standing and at least one year's undergraduate work in psychology and education.

## ENGLISH

Professor DODGE, Professor LIDDELL, Assistant Professor JONES  
Assistant Professor PAUL, Mr. HALLIDAY, Dr. TIEJE, Mr. BUCHEN

### A.—LITERATURE AND LANGUAGE

S 2a. SURVEY OF ENGLISH LITERATURE.—Nineteenth Century Prose. (This course with S 2b is equivalent to the second half of English 1 as described in the general Description of Courses, in Part III. To be credited as such an equivalent, the two parts should be taken simultaneously.) (2). Professor DODGE

*Prerequisite:* Entrance credit in English, or its equivalent.

S 2b. SURVEY OF ENGLISH LITERATURE.—Nineteenth Century Poetry. (This course with S 2a is equivalent to the second half

of English I as described in the General Description of Courses, in Part III.) (2). Mr. BUCHEN

*Prerequisite:* Entrance credit in English, or its equivalent.

S 23. INTRODUCTION TO SHAKESPEARE.—(2).

Assistant Professor PAUL

*Prerequisite:* One year of college English or an equivalent.

S 30. WORDSWORTH AND SHELLEY.—The *Globe Wordsworth* and the *Cambridge Shelley*. (2). Professor LIDDELL

*Prerequisite:* Two years of college English or an equivalent.

S 15. TEACHERS' COURSE.—Outlining a course in English; typical classics used in high schools; the correcting of themes; discussion of present tendencies in English teaching. (2).

Assistant Professor PAUL

*Prerequisite:* The consent of the instructor.

\*S 47. INTRODUCTION TO PROSE FICTION.—The origins of the various types of fiction, of English translations and imitations of foreign fiction before Richardson; the development of technique with reference to a proper understanding of the modern novel. (2). Dr. TIEJE

*Prerequisite:* Two years of college English or an equivalent.

\*S 7. CHAUCER.—Skeat's *Student's Chaucer*. (2).

Assistant Professor JONES

*Prerequisite:* Two years of college English or an equivalent.

\*S 8a. OLD ENGLISH (ANGLO-SAXON).—Bright's *Anglo-Saxon Reader*. (3). Professor DODGE

*Prerequisite:* Two years of college English, or one year of English and one of German.

\*S 120. SHAKESPEARE (ADVANCED COURSE).—*The Tempest* in Furness's Variorum or in the First Folio Edition. (2).

Professor LIDDELL

*Prerequisite:* Three years of college English.

## B.—RHETORIC

### I. Composition

S 1a. RHETORIC AND THEMES.—(This course is equivalent to the first semester of Rhetoric I as described in the general Description of Courses, in Part III.) Woolley's *Handbook of Composition* and Scott and Denney's *Paragraph Writing*. (3).

Mr. BUCHEN

*Prerequisite:* Entrance credit in English, or its equivalent.



S 1b. RHETORIC AND THEMES.—(This course is equivalent to the second semester of Rhetoric 1 as described in the general Description of Courses, in Part III.) Scott and Denney's *Paragraph Writing*. (3). Dr. TIEJE

*Prerequisite:* Rhetoric 1a or an equivalent.

S 3. ADVANCED COMPOSITION.—Short themes with an occasional long theme. (2). Assistant Professor JONES

*Prerequisite:* Rhetoric 1 or an equivalent.

## II. Public Speaking

S 7a. PUBLIC SPEAKING.—Drill in breathing, articulation, and gesture; reading aloud; the delivery of memorized selections. (Equivalent to the first semester of Rhetoric 7 as described in the general Description of Courses, in Part III.) (2). Mr. HALLIDAY

*Prerequisite:* Rhetoric 1 or an equivalent.

S 8. INTERPRETIVE READING.—English classics selected from among those most frequently taught in the high school. (1).

Mr. HALLIDAY

*Prerequisite:* Rhetoric 7 or an equivalent.

S 11. ORAL COMPOSITION.—Individual practise, with criticism. (This course should be preceded or accompanied by course 7.) (1).

Mr. HALLIDAY

*Prerequisite:* Rhetoric 1 or an equivalent.

## ENTOMOLOGY

Assistant Professor FOLSOM, Mr. PETERSON

S 1. GENERAL FIELD AND LABORATORY COURSE.—The essential facts of entomology, emphasizing those of economic importance. Lectures; laboratory studies; field observations. (For high school teachers.) Folsom's *Entomology with Reference to Its Biological and Economic Aspects*. (2½). Assistant Professor FOLSOM

S 2. ADVANCED COURSE.—(2½). Assistant Professor FOLSOM

S 3. ECONOMIC ENTOMOLOGY.—Common injurious insects in all their stages of development; their injurious activities; approved methods of control. (Equivalent to the economic entomology [ENTOMOLOGY 4] required of agricultural students.) (2½).

Assistant Professor FOLSOM

## FRENCH

Associate Professor CARNAHAN, Mr. LILLEHEI

S 1. BEGINNERS' COURSE.—Pronunciation; grammar; composition; reading of easy texts. Fraser and Squair's *Elementary French Grammar*; Bacon's *Une Semaine à Paris*. (4). Mr. LILLEHEI

S 2. READING OF MODERN FRENCH.—Rapid reading of modern authors; composition; conversation. Comfort's *Prose Composition*; Colomba, Mérimée; *Pêcheur d'Islande*, Loti; *Le Juif Polonais*, Erckman-Chatrian; *Hernani*, Hugo. (2).

Associate Professor CARNAHAN

*Prerequisite:* French 1 or an equivalent.

S 4. ADVANCED COMPOSITION AND CONVERSATION.—(1).

Associate Professor CARNAHAN

*Prerequisite:* Two years of university French or an equivalent.

\*S 10. HISTORY OF FRENCH LITERATURE.—Lectures with collateral reading. (1).

Associate Professor CARNAHAN

*Prerequisite:* Two years of university French or an equivalent.

## GERMAN

Associate Professor LESSING, Dr. KOLLER, Mr. BARTO Mr. HELD

S 1. BEGINNERS' COURSE.—(4).

Associate Professor LESSING, Mr. HELD

S 2. INTERMEDIATE COURSE.—(3).

Mr. BARTO

*Prerequisite:* German 1, or an equivalent.

S 3. PROSE READING.—Reading of narrative prose; sight translation; composition. (3).

Dr. KOLLER

*Prerequisite:* German 3, or an equivalent.

S 4. READINGS FROM THE CLASSICS.—Lessing's *Minna von Barnhelm*, Schiller's *Jungfrau von Orleans*. (3).

Mr. BARTO

*Prerequisite:* German 4, or an equivalent.

S 5. PROSE COMPOSITION.—Translation of ordinary prose into German; study of idiomatic constructions; practise in free composition in German. (1½).

Mr. HELD

*Prerequisite:* Two years' university work in German, or an equivalent.

S 6. MODERN FICTION.—Reading of modern authors, such as Keller, Meyer, and Storm. (2).

Dr. KOLLER



*Prerequisite:* Two years' university work in German, or an equivalent.

S 9. TEACHERS' COURSE.—Place, aim, and scope of the study of German in the high school; discussion of methods and the chief difficulties in teaching German. Observation work in the beginners' course. (1). Dr. KOLLER

*Prerequisite:* Three years' university work in German, or an equivalent.

S 11. HISTORY OF GERMAN LITERATURE FROM THE REFORMATION TO THE PRESENT TIME.—(2). Associate Professor LESSING

*Prerequisite:* Three years' university work in German, or an equivalent.

## HISTORY

Professor FORD, Dr. COLE

S 1b. EUROPEAN HISTORY, 1300-1648.—The Renaissance, the Protestant Revolution; the Thirty Years War; the beginnings of national States. Introductory course corresponding, for the period covered, to History I. (The course offered in 1914 will probably cover the modern period.) (2½). Professor FORD

S 3c. AMERICAN HISTORY, 1860-1868.—The Civil War; the Reconstruction of the Southern States; American society and politics in the last years of the nineteenth century. (2½). Dr. COLE

\*S 22. THE HISTORY OF THE UNITED STATES, 1815-1845.—The Monroe Doctrine; the westward movement; Jacksonian Democracy and the Whig Party. (2½). Dr. COLE

*Prerequisite:* One college course in American History or its equivalent and Junior standing.

\*S 101. INVESTIGATION OF SELECTED TOPICS.—Conferences with graduate students who desire guidance in research. Professor FORD

*Prerequisite:* One college course in American History and registration in the Graduate School.

HISTORY IN SECONDARY SCHOOLS.—Weekly conference of teachers of history and others. Dr. COLE

## HOUSEHOLD SCIENCE

Miss BIESTER, Miss PARSONS, Miss FLEMING

FOODS.—The work offered in foods is of two grades. A, That designed for those who have studied or taught household science

and wish to prepare themselves to teach it in high schools. B, Advanced work dealing with the general subject of nutrition.

S 1. The sources and cost of foods; the cooking of various types of foods; the combinations of food as shown in planning and service of meals. (Laboratory Fee, \$2.00.) (1½). Miss BIESTER

S 2. The relative nutritive value of foods; the methods of estimating dietetic values; the relation of foods to the human body. (Laboratory Fee, \$2.00.) (1½). Miss BIESTER

*Prerequisite:* One year's work of college rank with foods; one year of general chemistry; a course in general physiology.

S 3. LUNCH ROOM MANAGEMENT.—The history of the movement to feed school children; practise in lunch room management. (Laboratory Fee, \$3.00.) (1½). Miss PARSONS

*Prerequisite:* One year's training in food principles or an equivalent; practical experience in house management and marketing.

S 4. CLOTHING.—The textiles used in clothing; demonstrations in the use of patterns; drafting; the cost and care of clothing; the use and care of sewing machines. Laboratory; lectures; discussions. (1). Miss FLEMING

5. MILLINERY.—The construction of frames of wire, buckram and cape net; the covering and finishing; the making of bows. Demonstrations; laboratory. (1). Miss FLEMING

## LATIN

Professor BARTON, Associate Professor OLDFATHER

S 1. TERENCE.—The reading of two plays, with proper attention to language, verse, and scenic antiquities. (1½).

Associate Professor OLDFATHER

*Prerequisite:* Three or four years of high school Latin.

S 2. CICERO.—Readings from his philosophical works and essays. (1½). Associate Professor OLDFATHER

*Prerequisite:* Two or three years' university work in Latin, or an equivalent.

\*S 3. SUETONIUS.—Readings from the Cæsars; biography, literary work, and style of Suetonius. (1).

Associate Professor OLDFATHER



S 4. TEACHERS' COURSE.—The problems and methods of instruction in Latin in the secondary schools; the essentials of Latin study in the first and second years; books and equipment. (1½).

Professor BARTON

## LIBRARY SCIENCE

Miss BOND, Mr. REECE, Miss BATEMAN

NOTE:—The courses indicated covered six weeks and received no university credit. Only people employed in libraries were admitted.

S 1. CLASSIFICATION; CATALOGING; BOOK NUMBERS.—*Five times a week.*

S 2. REFERENCE WORK.—The selection and use of reference books suited to the small public library. *Twice a week.*

S 3. SELECTION OF BOOKS.—Principles of book selection and lectures on subject bibliography. *Twice a week.*

S 4. WORK WITH CHILDREN.—Selection and discussion of children's books; administration of children's libraries; classification and cataloging. *Twice a week.*

S 5. ORDER AND ACCESSION; LOAN DEPARTMENT; BINDING AND REPAIR. *Twice a week.*

S 6. LIBRARY ADMINISTRATION AND EXTENSION. *Twice a week.*

## MANUAL TRAINING

Mr. PARK

(See also ART AND DESIGN, GENERAL ENGINEERING DRAWING, and MECHANICAL ENGINEERING)

S 1. SHOP ADMINISTRATION.—History and theory of industrial education; typical schools and systems of manual training leading to a better understanding of the aims and methods employed for the promotion of industrial education; organization of work; equipments and materials. (2½). Mr. PARK

S 2. WOODWORKING.—(A course for teachers in the 7th and 8th Grades and high schools.) Tools—uses, names of parts, adjustments, care, how to sharpen; the making of important joints used in wood construction; the designing and making of arts and crafts furniture; notebook work, covering talks, papers, problems, work at the bench. (3). Mr. PARK

S 3. WOODWORKING.—Advanced work in cabinet making; designing and making furniture; hand-wrought copper or brass drawer pulls, door pulls, hinges, etc.; wood turning. (3). Mr. PARK

*Prerequisite:* Manual Training S 2.

## MATHEMATICS

Dr. CRATHORNE, Dr. BORGER, Mr. CARSCALLEN, Mr. ROWLAND, Mr. RUTLEDGE

S 2. ALGEBRA.—(Equivalent to Mathematics 2). Algebraic reductions; variables and functions; equations; inequalities; mathematical induction; variation; progressions; complex numbers; limits; infinite series; undetermined coefficients. (Theory of equations will be given with Math. S 6.) Rietz and Crathorne's *College Algebra*. (3). Dr. CRATHORNE

S 4. PLANE TRIGONOMETRY.—(Equivalent to Mathematics 4.) Rothrock's *Elements of Plane and Spherical Trigonometry*. (2).

Dr. BORGER

S 6. ANALYTICAL GEOMETRY.—(Equivalent to Mathematics 6.) Plane and solid analytic geometry; theory of equations; graphs. Rigg's *Analytic Geometry*. (5). Mr. RUTLEDGE

S 7. DIFFERENTIAL CALCULUS.—(Equivalent to Mathematics 7.) Townsend and Goodenough's *Essentials of Calculus*. (5).

Mr. ROWLAND

S 9. INTEGRAL CALCULUS.—(Equivalent to Mathematics 9.) Townsend and Goodenough's *Essentials of Calculus*. (3).

Mr. CARSCALLEN

\*S 10. THEORY OF EQUATIONS AND DETERMINANTS.—Fundamental properties of an algebraic equation in one unknown; simultaneous equations; linear equations; determinants. (3).

Dr. BORGER

\*S 20. CALCULUS OF VARIATIONS.—The necessary and sufficient conditions for a maximum or a minimum of a definite integral; the methods of Weierstrass, Kneser, and Hilbert applied to geometrical and physical problems. (3).

Dr. CRATHORNE

## MECHANICAL ENGINEERING

(See also MANUAL TRAINING).

Mr. ELLIS, Mr. SCROGGIN

S 1. PATTERN-SHOP.—The care and use of tools; the construction of patterns, core-boxes, and the use of machines such



as are found in modern pattern-shops. (3).

Mr. ELLIS

S 3. MACHINE-SHOP.—Chipping and filing; elementary work on lathe, drill press, shaper, planer and grinding machine. ( $2\frac{1}{2}$ ).

Mr. SCROGGIN

S 4. ADVANCED MACHINE-SHOP.—The use of milling machine, screw machine, gear cutter, boring mill, and turret lathe; erecting and testing machines and gas engines. ( $2\frac{1}{2}$ ).

Mr. SCROGGIN

NOTE: Lectures on tools and shop processes are given frequently, and inspection trips to shops in the local and adjoining towns are made in connection with all classes in shop practise. A student may finish one full year's work in the shop during the summer term.

## MECHANICS, THEORETICAL AND APPLIED

Mr. NOERENBERG, Mr. FARWELL, Mr. ENSIGN

S 7. ANALYTICAL MECHANICS.—The first half of Analytical Mechanics as given in Maurer's *Technical Mechanics*. (3).

Mr. NOERENBERG

*Prerequisite:* Mathematics 7; registration in Mathematics 9.

S 8. ANALYTICAL MECHANICS.—The second half of Analytical Mechanics as given in Maurer's *Technical Mechanics*. ( $2\frac{1}{2}$ ).

Mr. ENSIGN

*Prerequisite:* Mathematics 9; T. & A. M. 7.

S 9. RESISTANCE OF MATERIALS.—Elementary mechanics of materials; experiments and investigations in the materials laboratory; problems in ordinary engineering practise. (Equivalent to T. and A. M. 9.) Merriman's *Mechanics of Materials*. ( $3\frac{1}{2}$ ).

Mr. ENSIGN, Mr. FARWELL

*Prerequisite:* T. and A. M. 7; registration in T. and A. M. 8.

S 10. HYDRAULICS.—The pressure and the flow of water and its utilization as motive power; the observation and measurement of pressure, velocity, and flow; power and efficiency; the determination of experimental coefficients. Recitations; laboratory. Hoskin's *Hydraulics*. (3).

Mr. FARWELL

*Prerequisite:* T. and A. M. 8.

NOTE: With the opening of the hydraulic laboratory for the Summer School, arrangements may be made to use its facilities for special experimental work.

S 14. ELEMENTS OF MECHANICS.—The principles of kinematics, kinetics, and statics and their application. Moreley's *Mechanics for Engineers*. (For architects and others who have not taken the calculus.) (4). Mr. NOERENBERG

*Prerequisite:* Mathematics 2, 4.

## MUSIC

Professor MILLS

- |                                           |                 |
|-------------------------------------------|-----------------|
| S 1. THEORY AND HARMONY.—(1½).            | Professor MILLS |
| S 2. COUNTERPOINT AND FUGUE.—(2).         | Professor MILLS |
| S 3. HISTORY, APPRECIATION AND FORM.—(1). | Professor MILLS |
| S 5. CHORUS.                              | Professor MILLS |

## PHYSICAL TRAINING FOR MEN

Mr. CROOKS

- |                            |            |
|----------------------------|------------|
| S 3. SWIMMING INSTRUCTION. | Mr. CROOKS |
|----------------------------|------------|

## PHYSICS

Dr. WILLIAMS, Mr. JONES, Mr. RANDOLPH, Mr. WARNER  
Mr. COYLE

S 2aI. GENERAL PHYSICS Part 1.—Mechanics; laws of motion, forces, equilibrium. Experimental demonstrations; recitations. Kimball's *College Physics*. (1½). Dr. WILLIAMS, Mr. JONES

*Prerequisite:* Plane geometry; high school algebra; plane trigonometry desired.

S 2bI. INTRODUCTORY LABORATORY PHYSICS Part 1.—Physical measurements; mechanics; properties of matters. Schulz's *Laboratory Manual*. (1½). Mr. JONES, Mr. WARNER, Mr. COYLE

*Prerequisite:* Registration in S 2aI.

S 2aII. GENERAL PHYSICS Part 2.—Electricity and magnetism. Experimental demonstrations; recitations. Kimball's *College Physics*. (1½) Dr. WILLIAMS, Mr. JONES

*Prerequisite:* Same as for S 2aI.

S 2bII. INTRODUCTORY LABORATORY PHYSICS Part 2.—Experiments in electricity and magnetism to accompany S 2aII. Schulz's *Laboratory Manual*. (1½). Mr. JONES, Mr. WARNER, Mr. COYLE

S 4. ADVANCED ELECTRICAL AND MAGNETIC MEASUREMENTS.—



Laboratory; discussions; recitations; reports. (Equivalent to the first semester of Physics 4.) (2). Mr. RANDOLPH

*Prerequisite:* General physics; calculus.

S 15. ELECTRICITY AND MAGNETISM.—Lectures; recitations; laboratory. Brooks and Poyser's and Carhart and Patterson's *Electricity and Magnetism*. (1½). Mr. RANDOLPH

*Prerequisite:* A course in general physics.

S 16. HEAT.—Thermometry; calorimetry; vapor pressure; expansion. Lectures; demonstrations; recitations; laboratory. Edser's *Heat*. (1½). Dr. WILLIAMS, Mr. WARNER

*Prerequisite:* A course in general physics.

S 18. LABORATORY MANIPULATION.—Practical problems involved in the equipment for laboratory physics; glass blowing; making of simple apparatus; handling of tools. (1). Mr. JONES

*Prerequisite:* A course in general physics, enrollment in such a course, or teaching experience in physics.

\*S 31. INVESTIGATION OF SPECIAL PROBLEMS.—Advanced work in heat; electricity; magnetism. *Two to five times a week*.

Dr. WILLIAMS

\*S 133. SEMINAR AND THESIS.

## POLITICAL SCIENCE

Professor GETTELL

S 1. AMERICAN GOVERNMENT.—The historical development of the Constitution; the organization and functions of the federal and state governments; political parties; municipal and colonial government. (2½). Professor GETTELL

S 2. COMPARATIVE GOVERNMENT.—The state; government; historical development; organization, and actual workings of government in England, Germany, France, and the United States. (2½).

Professor GETTELL

## PSYCHOLOGY

(SEE EDUCATION AND PSYCHOLOGY.)

## RHETORIC

(SEE ENGLISH.)

## SOCIOLOGY

Professor HAYES

\*S 1. PRINCIPLES OF SOCIOLOGY.—Lectures; discussions; assigned reading. (2). Professor HAYES

S 5. CHARITIES AND CORRECTION.—Causes, prevention, and treatment of poverty and crime. (2). Professor HAYES

S 7. SOCIAL PROBLEMS OF THE RURAL COMMUNITY.—(1). Professor HAYES

### ZOOLOGY

Assistant Professor CARPENTER, Dr. RUTH MARSHALL, Mr. CORT

S 4. ELEMENTARY VERTEBRATE ZOOLOGY.—Classification of the Chordata; early development of the vertebrate body; comparative anatomy and physiology of the vertebrate organs. Lectures; laboratory. (Laboratory fee, \$2.50.) (4).

Assistant Professor CARPENTER, Mr. CORT

S 16. ORNITHOLOGY.—Identification; food relations; nesting habits; seasonal distribution. Lectures; field trips; laboratory. (2).

Dr. MARSHALL

\*S 21. INTRODUCTION TO ZOOLOGICAL RESEARCH.—Topics in vertebrate morphology, usually repeating the work of earlier investigators; histology of the nervous system. Conferences; laboratory; assigned readings. (Laboratory fee, \$2.00.) (2 to 4).

Assistant Professor CARPENTER

\*S 121. PROBLEMS IN VERTEBRATE MORPHOLOGY.—Conferences; laboratory. (Laboratory fee, \$2.00.)

Assistant Professor CARPENTER



# THE COLLEGE OF LAW

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For the *faculty* of the College of Law, see page 417; for the *courses* in law, page 87; for *fees* and *expenses*, pages 150 and 152.

## GENERAL STATEMENT

It is the aim of the College to furnish its students with such a training as will best fit them for the practise of the law. A mere knowledge of what the law is will not suffice. The student must learn the reasons which have made it what it is. These can be mastered only by studying the law in the light of its historical development. No special course is offered on the history of the law; but it is sought to present each subject so that the principles peculiar to it may be historically understood. It is also the aim of the College that the courses shall be so presented as to familiarize the student with legal methods of reasoning and to equip him with legal habits of thought. It is believed that the case method of instruction, properly understood and applied, is best adapted to accomplish these objects.

## ADMISSION

*With the exception of special students as defined below*, applicants for admission to the College of Law in 1914-15 must have obtained credits for one year's work in another college of this University or of some other institution of recognized standing; provided, however, that an applicant who lacks not more than four semester hours of such credit may be admitted on condition of making up the deficiency before beginning the second year of law study.

## NEW REQUIREMENTS FOR ADMISSION, 1915-16

The requirements for admission to the College of Law for the year 1915-16 and thereafter will be as follows:

For admission as a regular student and candidate for the degree of Bachelor of Laws, an applicant must be matriculated and have 60 hours of credit in a college of this University; or have completed two full years of work as given at another college or university

of recognized standing; or have received by transfer 60 hours of university credit here.

The faculty of the College of Law may, in its discretion, prescribe from time to time subjects which shall be required as part of the preliminary college work, subject to approval by the University Senate.

A student who is 21 years of age and is entitled to admission as a regular student to another college of this University, will be admitted as a special student in the College of Law. If he attains in the courses of the first year an average grade of 80 or over, he will be admitted to regular standing, and he may receive the degree of Bachelor of Laws if in all the courses he presents for the degree his average grade is 80 or more.

NOTE: The above is not intended to abrogate the present rule in regard to the admission of special students (page 272).

## SUGGESTED PREPARATORY COURSES

Below is given a schedule of studies recommended by the faculty of the College of Law for students taking one year in the College of Liberal Arts and Sciences to meet the present (1914-15) requirement for admission to the College of Law.

A schedule of studies covering two years is added for the guidance of those who take two years of pre-legal work, as required for 1915-16 and thereafter.

### One Year Course in Preparation for Law

| FIRST SEMESTER               |       | SECOND SEMESTER          |       |
|------------------------------|-------|--------------------------|-------|
|                              | Hours |                          | Hours |
| Military 2.....              | 1     | Military 1 and 2.....    | 2     |
| Phys. Training 1 and 1a..... | 1     | Physical Training 1..... | 1     |
| Rhetoric 1.....              | 3     | Rhetoric 1.....          | 3     |
| Foreign Language .....       | 4     | Foreign Language.....    | 4     |
| History 1.....               | 4     | History 11.....          | 3     |
| Economics 7.....             | 3     | Mathematics 2.....       | 3     |
| Total .....                  | 16    | Total .....              | 16    |

The courses in Military and Physical Training and Rhetoric 1 and eight hours in foreign language are required of freshmen in the College of Liberal Arts and Sciences. Latin is strongly urged for all students intending to study law; but those who have not had the necessary preparation for college courses in Latin should substitute a modern language, preferably French or German. Tho credit is usually not given for a single semester's work in History 1, ar-



rangements have been made with the department of history by which a student taking only one year of work in preparation for law will receive credit for the first semester of History I provided that in the second semester he also receives credit in History II.

Two Year Course in Preparation for Law

Students who give two years to preparatory work are recommended to take the schedule given below.

| FIRST SEMESTER                   |          | FIRST YEAR               |       | SECOND SEMESTER |       |
|----------------------------------|----------|--------------------------|-------|-----------------|-------|
|                                  | Hours    |                          | Hours |                 | Hours |
| Military 2.....                  | 1        | Military 1 and 2.....    | 2     |                 |       |
| Phys. Training 1 and 1a.....     | 1        | Physical Training 1..... | 1     |                 |       |
| Rhetoric 1.....                  | 3        | Rhetoric 1.....          | 3     |                 |       |
| Foreign language.....            | 4        | Foreign language.....    | 4     |                 |       |
| Economics 7.....                 | 3        | History 11.....          | 3     |                 |       |
| Science .....                    | 5        | Mathematics 2.....       | 3     |                 |       |
|                                  |          |                          |       |                 |       |
| Total .....                      | 17       | Total .....              | 16    |                 |       |
| SECOND YEAR                      |          |                          |       |                 |       |
| Military 2.....                  | 1        | Military 2.....          | 1     |                 |       |
| Science or foreign language..... | 5 or 4   | English 20.....          | 4     |                 |       |
| Political Science 1.....         | 3        | Political Science 3..... | 3     |                 |       |
| Economics 1.....                 | 5        | Economics 3.....         | 3     |                 |       |
| History 3.....                   | 3        | Philosophy 1.....        | 3     |                 |       |
|                                  |          | History 3.....           | 3     |                 |       |
|                                  |          |                          |       |                 |       |
| Total .....                      | 16 or 17 | Total .....              | 17    |                 |       |

COMBINED COURSE IN LIBERAL ARTS AND SCIENCES  
AND LAW

By the proper selection of his studies it is possible for a prospective law student to take both the degree in arts and the degree in law in six years. (See page 172).

SPECIAL STUDENTS

Students twenty-one years of age, or over, who are not able to satisfy the regular requirements for admission, but who have had a preliminary education which would entitle them to take the Illinois State Bar Examination, may, by permission of the faculty, be admitted without examination as special students, but no such student may be a candidate for a degree. In exceptional cases, other persons may, by permission of the faculty, be admitted as special students.

No one may continue as a special student for more than two years except by special permission of the faculty, application for which should be made through the Dean.

## ADVANCED STANDING

After matriculating, an applicant may obtain advanced standing (1) by transfer of credits from another accredited law school upon presentation of a certificate of honorable dismissal and a certified record of work done; or (2) by examination taken at the time of entrance to the College of Law in first year subjects only.

## INSTRUCTION

Courses in substantive law are taught by analyzing and comparing cases which have been carefully selected and arranged in case books. References, however, are constantly made to leading text books, and they are recommended and in certain courses required for collateral reading.

Courses in the law of procedure are taught from the leading text books, supplemented by the examination of statutes and adjudged cases, and students are brought into as close touch as possible with actual practise, both by the method of instruction in these courses and by means of the Moot Court.

The instruction gives a thoro training in the common law, which constitutes a proper foundation for the practise of law in any state.

The faculty of the College is impressed with the idea that a state university should teach the law of the state which supports the school, and to that end, without neglecting the general principles that lie at the foundation of the common law, especial attention is given in all courses to grounding the student thoroly in the law as determined by the courts of Illinois. Throughout the entire course, the students are required to consult frequently Illinois decisions and statutes, which are made the basis of discussion in class by students and instructor. In the Moot Court and through the course in Illinois procedure, especial attention is paid to the rules of pleading and practise that obtain in the State of Illinois.

## MOOT COURT

The sessions of the Moot Court are held every Monday afternoon of the first semester for the third year class; every Tuesday afternoon of the first semester for the second year class; and every Monday afternoon of the second semester for the second and third year classes together. The Court is presided over by the Dean, who has had an experience of twenty-five years as a judge of the Circuit and Appellate Courts of Illinois. Attendance is compulsory with second and third year classes. It is the purpose to have the work-



ings of the Moot Court parallel proceedings in the various courts of the State. Students are trained in the preparation of legal documents and in the trial of cases, both civil and criminal.

The Moot Court Bulletin is published every other week of the college year, and in this are printed the statements of cases, the briefs of opposing counsel, and the opinions of the presiding judge.

### SPECIAL LECTURES

Addresses by prominent members of the bench and bar on practical features of the law are given from time to time during the year.

### THE LAW LIBRARY

The Law Library contains 16,000 volumes, including all the reports of the courts of last resort of all the states; the United States Supreme, Circuit, and District Court reports; the English reports; the Irish reports; the Scotch Appeal Cases; the Current Canadian and Australian reports, together with complete reports of several of the Canadian provinces; the statutes of the various states; digests of the state reports; several sets of special reports, such as the American Reports, American State Reports, American Decisions, Lawyers' Reports Annotated, and American Cases Annotated; complete National Reporter System; all the great Encyclopedias and Digests; and a carefully selected collection of text books and legal periodicals.

The library is growing rapidly, new sets of reports and new digests, text books, and periodicals being continually added, together with the continuations of the reports and periodicals already in the library.

### REQUIREMENTS FOR GRADUATION AND DEGREES

The degree of Bachelor of Laws will be granted to all regularly matriculated students who complete all the courses in the first year list; courses 8, 10, 11, 12, 18, 20, 26 (second year); courses 4a, 15, 17, 19, 21, 22, 26, 31 (third year); and enough of the other courses offered to make 84 hours of credit.

### DEGREE OF DOCTOR OF LAW

The degree of Doctor of Law (J. D.) will be granted to students who comply with the following conditions:

1. Complete the work required for the degree of Bachelor of Laws.

2. Secure a bachelor's degree in arts or science at least two academic years prior to the completion of the course for the degree of Bachelor of Laws.

3. Obtain a minimum average grade of 85 in the College of Law.

4. Present a thesis approved by the faculty of the College of Law, in accordance with the requirement hereinafter set out.

Students who receive the A.B. degree after registering in the College of Law, and, by counting courses in law toward both the degree of A.B. and the degree of LL.B., take both degrees in six years, must during the first year in the College of Law take four hours in history or the social sciences.

*Rules concerning Theses*

The following are the rules concerning theses presented for the degree of Doctor of Law: 1. The thesis must be on a subject approved by the Dean of the College of Law after consultation with him as to the proposed method of treatment. 2. The subject of the thesis must be filed with the Secretary on or before December 20. 3. The thesis must be typewritten on paper 8½x11 inches, with at least one inch margin at the top, bottom, and sides. 4. It should contain not less than 4,000 nor more than 10,000 words. 5. In citing cases, names of parties, volume, page, and year should be given. Citations are not to be counted in determining the number of words. The student is expected to exhaust the cases decided during the period covered by his thesis, and to state the period for which the cases have been examined. 6. The thesis must be delivered to the Secretary of the faculty not later than May 1.

The thesis may then be returned to the writer for revision, or if unsatisfactory, it may be rejected altogether. If returned for revision it may be rejected after being revised. If accepted it will be filed in the Law Library, and may be published by the College of Law or by the University.

CERTIFICATE FOR ADMISSION TO THE ILLINOIS STATE  
BAR EXAMINATION

Any student, altho not a candidate for a law degree, if he has taken the following courses: 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 18, 20, 26 (2nd and 3rd year), 4a, 15, 17, 19, 21, 22, and 31, is entitled to a certificate thereof from the University, which certificate satisfies the requirements as to legal studies prescribed by the Supreme Court of the State of Illinois for admission to the bar.



## COURSE LEADING TO THE DEGREE OF LL.B.

## FIRST YEAR

FIRST SEMESTER: Contracts (Law 1); Torts (Law 2); Criminal Law (Law 5); Personal Property (Law 6).

SECOND SEMESTER: Contracts (Law 1); Torts (Law 2); Real Property (Law 3); Common Law Pleading (Law 4); Domestic Relations (Law 7).

## SECOND YEAR

FIRST SEMESTER: Evidence (Law 8); Agency (Law 11); Equity (Law 12); Wills (Law 18); Moot Court (Law 26); Conveyancing (Law 29); Public International Law (Law 30); Insurance (Law 28).

SECOND SEMESTER: Real Property (Law 10); Damages (Law 13); Equity Pleading (Law 20); Moot Court (Law 26); Sales (Law 9); Carriers (Law 14); Future Interests in Property (Law 27); Quasi-Contracts (Law 32); Public Service Companies (Law 34).

## THIRD YEAR

FIRST SEMESTER: Illinois Procedure (Law 4a); Bills and Notes (Law 15); Partnership (Law 19); Constitutional Law (a) (Law 22); Moot Court (Law 26); Mortgages (Law 23); Bankruptcy (Law 25).

SECOND SEMESTER: Trusts (Law 16); Private Corporations (Law 17); Suretyship (Law 21); Constitutional Law (b) (Law 33); Moot Court (Law 26); Conflict of Laws (Law 31).

## PRIVILEGES OF STUDENTS

The students of the College of Law may take, without extra fee, courses of study in other departments of the University, provided they secure the approval of the Dean of the College of Law. Especial attention is called to the courses in public speaking and debate, and to the courses in history, economics, and political science in the College of Liberal Arts and Sciences and the Graduate School.

Law students are entitled to library privileges in the general library as well as in the law library, and possess in general all the rights and privileges enjoyed by other students of the University.

## LAW CLUBS

The law students have organized voluntary associations for the discussion of interesting and important questions of law, and for the

trial of hypothetical cases of their own choice. Four of these societies are active at present. They are known as the Van Twiller, Witenagemot, John Marshall, and Fuller club courts.

### SCHOLARSHIP PRIZES

Eight scholarship prizes are open to matriculated students of the first and second years, to be awarded at the end of each year, four of \$50 each and four of \$25 each, available in discharge of tuition fees.

The American Law Book Company of New York offers an annual prize consisting of the Students' Edition of CYC, to be awarded to the member of the senior class making the best average during his senior year.

Callaghan & Company, Law Publishers, of Chicago, offer an annual prize consisting of a set of Andrews American Law and Procedure (2 vols.) to be awarded to the member of the second year class making the best average during his second year.



# THE COLLEGE OF MEDICINE

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For the faculty of the College of Medicine, see page 43.

## BUILDINGS AND EQUIPMENT

The College buildings are located in the city block lying between Harrison, Congress, Honore, and Lincoln streets in Chicago. The main building, in which are housed all the departments except that of anatomy, is a brick and stone structure two hundred feet long by one hundred and ten feet deep, and five stories high, fronting on four streets. This building contains three lecture rooms with a seating capacity of two hundred each, a clinical amphitheater with a seating capacity of over three hundred, and an assembly hall with a seating capacity of seven hundred, besides recitation rooms. It also contains laboratories for physiology, chemistry, materia medica, therapeutics, and microscopical and chemical diagnosis, each capable of accommodating from fifty to one hundred students at a time.

A three-story annex to the main building contains the laboratories used by the departments of biology, histology, embryology, pathology, bacteriology, and chemistry. All of these laboratories have outside light. They are furnished with work tables, desks, and lockers, and are equipped with the necessary apparatus. There is a supply of microscopes, lenses, and oil immersions, and a projection apparatus for the illustration of lectures by means of stereopticon views.

## CLINICAL FACILITIES

### DISPENSARY CLINICS

The Dispensary occupies the first floor of the main building. Connected with the reception room are ten clinic rooms. During the past year there have been treated in these rooms 21,000 patients.

During the junior year each student is required to take a course of instruction in each department under the direction of members of the Faculty. The student has opportunity to examine and treat the patient himself under the guidance of the teachers

## AMPHITHEATER CLINICS

More than 600 clinics besides the dispensary clinics are given by the College during the collegiate year. Practically all diseases seen in the temperate zone are demonstrated and all of the operations of surgery are performed in these clinics.

Senior students are required to examine and diagnosticate many of these cases and are detailed to assist in the operations.

Students are prohibited from doing work that interferes in *any* way with the fulfillment of the requirements of the curriculum. The official clinical requirements of the curriculum may not be substituted by unofficial clinical work.

## MATERNITY CLINICS

The clinical work in obstetrics is given in the University Hospital and the Chicago Lying-in Hospital and Dispensary. Daily clinics, in which the management of gravidæ and puerperæ and new born infants is demonstrated, are held in the University Hospital. All senior students are required to attend these clinics in sections two hours a day for a period of two weeks. During this service they are also assigned to two or more cases of labor in the hospital. An amphitheater clinic is also given once a week which is attended by each half of the class alternately for one semester. The class sections are admitted by ticket to emergency obstetrical operations during the term of their attendance in the amphitheater clinic.

All fourth year students are also required to take a course of two weeks in residence in the Chicago Lying-in Hospital and Dispensary. Each student sees and conducts 6 to 10 cases in the homes of patients under the guidance of the assisting physicians. The student and nurse visit mother and babe daily for ten days afterwards. In this service the students learn to provide the necessary obstetrical outfit and to deal with patients in their homes. Pathological cases in the Dispensary are cared for in the home or in the hospital of the institution or in the University Hospital.

The fee for the course is fifteen dollars (\$15.00), payable in advance at the Chicago Lying-in Hospital.

## HOSPITAL CLINICS

Hospitals—The West Side Hospital is connected with the College by a corridor. The building is 50x100 feet, five stories high. It contains 95 beds, two operating rooms, and a clinical amphitheater of seventy-five seats on the fifth floor. The new West Side



Hospital is a six story, fire-proof structure containing 110 beds, three operating rooms, two electric elevators, and a laboratory.

The University Hospital, at Ogden avenue, Congress and Lincoln streets, opposite the College, is a five-story building of fire-proof construction containing 92 beds, two operating rooms, and a clinical amphitheater of seventy-five seats on the first floor.

These institutions are located near the College and certain clinical facilities, furnished by them, are open to its students.

Within half a block of the College is the Cook County Hospital. This institution is the chief free hospital in Chicago. During the past year it has cared for 30,000 patients. In this hospital is conducted much of the clinical instruction of the College.

Medical appointments in this institution are made by the Civil Service Board each year. The internes, sixty-four in number, and externes are selected each spring by competitive examination. Only graduates of medical colleges of Cook County are eligible for these examinations. The internes serve eighteen months, and receive their board and laundry and have rooms in the hospital. They do a large amount of surgical, medical, and obstetrical work.

In addition to Cook County Hospital, there are more than sixty public and private hospitals in Chicago. Each of these hospitals appoints from two to four internes annually.

The students of this College are required to attend the clinics of the Cook County Hospital during their Junior and Senior years. The hospital tickets cost \$5.00 each, and are for sale at the office of the Warden. They admit the holders to all clinics and autopsies and to all public operations and lectures in the hospital grounds.

The County Morgue is located in the hospital grounds, and daily post-mortems are held by the pathologists of the hospital. Attendance is required during two years.

Members of the Faculty are connected with and give clinical instruction, to which students are admitted under certain conditions, in the following hospitals:

|                      |                        |
|----------------------|------------------------|
| Cook County Hospital | St. Mary's Hospital    |
| West Side Hospital   | St. Luke's Hospital    |
| University Hospital  | Michael Reese Hospital |
| Augustana Hospital   |                        |

#### QUINE LIBRARY

The library is located in the College building. It was named in honor of the Senior Dean, William E. Quine.

The bound volumes now number more than 15,000 and include many of the important text-books and monographs on medical subjects in the English language. One hundred twenty medical periodicals are received.

This collection of books and periodicals is systematically classified and cataloged by a librarian who is constantly present to assist and instruct students in the use of a technical library. The proximity of the library to the class and lecture rooms materially augments its value.

### ADMISSION

Applicants for admission to the College of Medicine for the collegiate year beginning September 1, 1914, and thereafter, must offer:

I. Fifteen (15) units of secondary credit, including prescribed subjects as follows:

|                                      |         |
|--------------------------------------|---------|
| English .....                        | 3 units |
| Algebra .....                        | 1 unit  |
| Plane geometry.....                  | 1 unit  |
| German, French, Latin, or Greek..... | 2 units |
| American history and civics.....     | 1 unit  |
| Electives .....                      | 7 units |

—

Total .....15 units

II. Sixty (60) semester hours of collegiate credit, including prescribed subjects as follows:

|                       |          |
|-----------------------|----------|
| Physics .....         | 8 hours  |
| Chemistry .....       | 8 hours  |
| Biology .....         | 8 hours  |
| German or French..... | 6 hours  |
| Electives .....       | 30 hours |

—

Total .....60 hours

Either the secondary or the collegiate requirements may be satisfied (a) *by certificate* or (b) *by examination*.

I. (a) Secondary credits will be accepted *by certificate* from the following sources:

(1) From high schools and academies in the State of Illinois which are accredited to the University of Illinois.

(2) From the state normal schools of Illinois and other normal schools having equal requirements for graduation.



(3) From schools accredited by the North Central Association of Colleges and Secondary Schools.

(4) From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.

(5) From schools approved by the New England College Entrance Certificate Board.

(b) Secondary credits may be made *by examination*:

(1) In the examinations conducted by the Registrar of the University of Illinois at the University in Urbana in January, July, and September of each year. For programs of these examinations see pages 98, 99, 100.

(2) In the examinations conducted by the Registrar of the University of Illinois at the College of Medicine in September of each year. In 1914 these examinations will be held September 23 to 26. Programs may be had by applying to the Secretary of the College of Medicine, Congress and Honore Streets, Chicago. The subjects offered will be the same as those included in the list on page 99. For a description of the ground covered in the several subjects see pages 108-117.

(3) In the examinations conducted in June of each year by the College Entrance Examination Board. See page 93.

(4) In the examinations conducted by the Regents of the University of the State of New York.

II. Collegiate credits will be accepted *by certificate* from recognized colleges which require for admission the completion of at least 14 units of high school work in an accredited high school, or the full equivalent thereof, and for graduation, in addition, four years of college work; or may be made *by examination* in the examinations conducted by the Registrar of the University of Illinois at the College of Medicine in September of each year. *Special arrangements must be made in advance with the Registrar for examinations in collegiate subjects.*

Students are strongly urged to acquire such an elementary knowledge of Latin as may be obtained in four or five years' work in school or college.

Students lacking the prescribed college work in any one of the sciences (physics, chemistry, or biology) who have had a full year's work in that science in an accredited high school may be admitted to courses in these subjects to be offered at the College of Medicine

during the summers of 1914 and 1915, which will be of assistance to them in preparing for examinations to remove these deficiencies.

It will be noted that a properly prepared student of good ability can complete the minimum prescriptions in collegiate work within two years and still have considerable time for the study of language, history, economics, psychology, etc.—all subjects of which it is eminently desirable that the future physician should know something.

The above represent the minimum requirements for admission to the College of Medicine. It is strongly urged that students shall have completed at least three years, or, if possible, four years, in a standard college before taking up the study of medicine.

### ADMISSION AS SPECIAL STUDENTS

The general rule of the University will apply to the College of Medicine: Persons over twenty-one years of age, *not candidates for a degree*, may, on special approval of the dean, be admitted to classes for which they are prepared.

### ADVANCED STANDING

The University will accept scholarship and time credits for work done in the Medical Colleges of Class A in the list of the American Medical Association, and in the Colleges of the Association of American Medical Colleges, in so far as this work coincides with, or is the full equivalent of, the courses prescribed by the University.

Students presenting credentials from Class A medical colleges will be exempt from examination in so far as the credentials may cover the work of the year or years for which the applicant seeks to be credited. Every such student must present a letter of honorable dismissal from and be eligible for promotion in the college in which he has pursued his medical studies, and must comply with the requirements for such promotion in this institution.

Students from medical schools other than those of Class A who satisfy in full the entrance requirements as stated above and matriculate in the College of Medicine may be examined by a committee of the faculty of the college in subjects completed in the medical school previously attended; for each subject passed the student will receive the amount of time credit (on the four years required for graduation) that is assigned to that subject in the



course of the College of Medicine; but in no case will time credit for more than two years be given.

*Students thus advanced may not complain of any conflict of hours, nor absent themselves from any part of the lower conflicting course; but they may make up deficiencies in the work of one term in any other term in which such work is offered.*

Physicians who have been graduated from medical schools recognized at the time of graduation by the boards of health of the states in which they are located, who have passed state board examinations, who have been in active practise for not less than five years, and who are in good standing in the medical societies of their cities or counties, may be admitted to the senior class. Official credentials covering all the conditions named must be furnished in advance.

### REGISTRATION

Students are required to register in the office of the Secretary immediately upon the opening of the term for the work of that term, and credit will be allowed only in the branches in which the students are registered. Students will be registered in the order in which their fees are paid. Registration of students will close October 7.

### COLLEGIATE YEAR

The collegiate year of 1913-14 consists of a session of thirty-six weeks, beginning October 1, 1913, and ending June 11, 1914, at which time degrees will be conferred.

Each year is divided into two semesters of eighteen weeks each. Attendance upon the full session is required in order to secure credit for a year's work, and attendance upon four full sessions is required for graduation.

### FEES AND EXPENSES

For a statement of fees, see page 150.

The expense of living in Chicago is less than in most other large cities. From twenty-five to thirty-five dollars per month may be regarded as adequate for the ordinary living expenses of a student exclusive of books, clothing, railroad fare, and small miscellaneous needs.

The expense for books varies between \$15.00 and \$25.00 a year. The instructors, at the beginning of each course, direct their students in regard to the purchase of textbooks.

## SCHOLARSHIPS

Through the generosity of the late Prof. R. L. Rea a fund has been provided for four scholarships each year for indigent worthy students. These scholarships will be awarded by the officers of the faculty to the four students whose credentials and qualifications for the study of medicine entitle them to participate in the benefits of the Rea fund.

The students whose names follow received benefit under the above scholarship during the session of 1913-14:

Arthur Davis

Dimiter George Fournadjieff

Rose Sophia Houda

Walter L. Johnson

The Emily W. L. Schofield Scholarship of the Northwestern branch of the Woman's Foreign Missionary Society of the Methodist Episcopal Church was awarded in 1913-14 to Miss Beulah A. Cushman.

The scholarships given by the Woman's Congregational Board of Missions of the Interior were awarded in 1913-14 to Miss Marion A. Weightman and Miss Josephine Kennedy.

## COURSES OFFERED

The student is offered his choice of the following courses:

1. A course of eight years—four years in the College of Liberal Arts and Sciences at Urbana, leading to the degree of Bachelor of Arts, followed by four years in the College of Medicine in Chicago, leading to the degree of Doctor of Medicine. This plan not only gives a liberal course of study and a medical course as well, but offers opportunity in the last two years of the medical course for specializing in chosen lines. This course of study is recommended to young men who can afford the time for it, and who are of the average age of graduation from the public high schools.

2. A course of six years—the three years of the premedical course in the College of Liberal Arts and Sciences at Urbana (see page 175), followed by three years in the College of Medicine in Chicago. For the satisfactory completion of this course, the University confers two degrees—that of Bachelor of Arts at the end of the fourth year, and that of Doctor of Medicine at the end of the sixth year. This course is recommended to all candidates for the medical profession who cannot spare the time for the preceding course.



3. The four-year course as offered in the College of Medicine, leading to the degree of Doctor of Medicine. The two years of work in arts and sciences required for admission to the College of Medicine may be taken in the College of Liberal Arts and Sciences at Urbana.

### REQUIREMENTS FOR GRADUATION

The requirement for graduation from the College of Medicine is attendance during four collegiate years, the last of which must have been in this institution, and the completion of the required work of each year. Students must complete all the work required in any branch in an uninterrupted course of instruction in order to receive any credit in that branch.

### GENERAL PLAN OF INSTRUCTION

The curriculum required for graduation extends over four years. During the first two years the work is largely confined to the sciences fundamental to practical medicine and the time of the student is about equally divided between didactic and laboratory instruction. During the freshman year this consists of work in anatomy, biology, histology, embryology, physiology, chemistry, pharmacy, and bacteriology. During the sophomore year the study of anatomy, physiology, and chemistry is continued, and in addition the student takes up therapeutics, pathology, and autopsies.

Wherever possible, practical laboratory work is made to supplement didactic teaching. Students are not only taught from prepared specimens, but are required to prepare their own specimens from the original material.

During the junior and senior years the time is devoted to practical medicine and surgery, and is about equally divided between didactic and clinical instruction.

Attendance upon clinics is required and students are graded upon and given credit for their work in the clinical courses just as they are for the work in the didactic and laboratory courses. The students of the junior year are divided into classes for dispensary work, and these classes have instruction in rotation in the various departments of practical medicine and surgery.

For the benefit of senior students a review quiz course in anatomy, physiology, chemistry, pathology, and materia medica is maintained by the faculty. Attendance upon the quizzes is optional.

Certificates showing the credits earned, including the attendance record, are issued at the end of the college year. These reports will be mailed to the students at the College, or at such other addresses as they may direct, as soon as possible after the end of the term.

## DESCRIPTION OF COURSES

NOTE.—The semester in which each course is given, and the number of hours per week and per semester devoted to it, are shown at the end of the description of the course, for example: I, II; lec. and rec., 4-144; lab., 4-144. The Roman numerals indicate semesters; the arabic numeral preceding the hyphen the number of hours per week; and the arabic numeral following the hyphen the number of hours per semester.

### FRESHMAN YEAR

1. HUMAN ANATOMY.—Osteology; myology; arthrology; angi-ology (including the heart); phlebology; neurology; the respiratory and alimentary systems. Gray's *Anatomy* (18th Am. ed.); Cunningham; Morris; Spalteholz; Sobotta & McMurrich's *Anatomical Atlases*; Santee's *Brain and Spinal Cord*; Barker's *Anatomic Nomenclature* (BNA). I, II; lec. and rec., 4-144; lab., 4-144.

Professor EYCLESHYMER, Dr. RUPERT

2. BIOLOGY.—*One semester*; lec. and rec., 1-18; lab., 1-18.

3. HISTOLOGY AND EMBRYOLOGY.—Bailey; Stoehr; Shafer; Heisler; Bailey & Miller. I, II; lec. 3-108; lab., 4-144.

Professor EYCLESHYMER

4. PHYSIOLOGY.—Blood; lymph; muscle; nerves. Experiments and demonstrations. Howell's *Textbook of Physiology*; Tiegerstedt; Stewart; Hall. *One semester*; lec., 3-54.

Professor DREYER

5. GENERAL CHEMISTRY.—Remsen; Simon; Holland; Jones. I, II; lec. and rec., 4-144; lab., 6-216.

Assistant Professor WELKER, Dr. MILLER, Dr. SMALL

6. PRESCRIPTION WRITING AND PHARMACY.—Weights and measures; the preparation of galenicals; their incompatibles; the principles of prescription writing; specimen pharmaceutical preparations made by the student; individual drill in writing prescriptions. Fantus; *Prescription Writing and Pharmacy*. *One semester*; lec. and rec., 1-18; lab., 1-18.

Professor FANTUS, Dr. HASKELL

7. BACTERIOLOGY.—Methods of cultivation of bacteria; identification of species; ten non-pathogenic and ten pathogenic bacteria. Zapfe; Abbott; reference: Chester; McFarland. *One semester*; lec., 2-36; lab., 6-108.

Professor GEHRMANN



## SOPHOMORE YEAR\*

1. HUMAN ANATOMY.—Dissection: head; neck; trunk; thoracic and abdominal organs; the genitalia; perineum; peripheral nervous system; the human brain and spinal cord. Study: the neurone and its supporting tissue; histological sections of all parts of the nervous system. Lectures and demonstrations: the organs of respiration, circulation, and digestion; the ductless glands; genito-urinary organs; organs of the senses; the central and sympathetic nervous systems. Gray's *Anatomy*, 18th American Edition. Morris's *Human Anatomy*, (4th ed.); Cunningham; Piersol; Santee's *Brain and Spinal Cord*; Cunningham's *Practical Anatomy*; Spalteholz; Barker's BNA. *I, II*; dem. and quiz., 3-108; lab., 4-144.

Professor EYCLESHYMER, Dr. RUPERT

2. PHYSIOLOGY.—Circulation; respiration; secretions; digestion; nutrition; the special senses; the nervous system. Laboratory; normal hæmatology; the physiology of muscle and nerve; the organs of circulation and respiration. Experiments on man capable of direct clinical application introduced wherever possible; each student expected to perform at least two blood-pressure experiments on the mammal with the endless roll kymograph, under the direct supervision of an instructor. Howell's *Textbook of Physiology*; Tiegerstedt; Stewart; Hall. *I, II*; lec. and rec., 4-144; lab., 3-108.

Professor DREYER

3. PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY AND TOXICOLOGY.—Alimentary principles and foods; digestive secretions and their actions; solid tissues; blood; milk; urine; identification of poisons. Hawk; Hammersten; Simon. *I*; lec. and rec., 3-54; lab., 3-54; *II*; lec. and rec., 2-36; lab., 3-54.

Assistant Professor WELKER, Dr. MILLER, Dr. SMALL

4. PHARMACOLOGY AND THERAPEUTICS.—The action and uses of medicines; the symptoms, morbid anatomy, and treatment of poisoning. Hydrotherapy; electrotherapy; mechanotherapy; dietetics; climatology. Cushny; Sollmann; Baruch; Hutchinson; Morton; Cohen's *System* (selected vols.). *I, II*; lec. and rec., 5-180; lab., 64.

Professor FANTUS

5. GENERAL PATHOLOGY AND PATHOLOGICAL ANATOMY.—Delafield and Prudden. *I, II*; lec., 2-72; lab., 4-144.

6. AUTOPSIES.—*II*; 2-36.

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\*For explanation of abbreviations and descriptions of courses see note on page 287 following "Description of Courses."

## JUNIOR YEAR\*

1. PRACTICE OF MEDICINE.—Infectious diseases and intoxicants. Constitutional diseases and diseases of the kidneys. Diseases of the digestive organs. French. *I, II*; rec., 4-144.

Assistant Professor HEINTZ, Dr. LORCH, Dr. CORCORAN, Dr. SCHMIDT, Dr. IRISH, Dr. SMEJKAL

NEUROLOGY.—*I, II*; rec. 2-72.

2. PHYSICAL DIAGNOSIS.—Lectures; personal training; practice in the Dispensary. Da Costa. *I, II*; 3-54.

Assistant Professor LEWISON

3. DERMATOLOGY.—Pusey. *I*; lec. 2-36.

Professor PUSEY, Assistant Professor HARRIS, Dr. STILLIANS

4. PRACTICE OF SURGERY.—DaCosta's *Modern Surgery*. *I, II*; rec., 4-144.

Associate Professor HUMISTON, Dr. MOORE, Dr. DYAS, Dr. HARGER

5. ORTHOPEDIC SURGERY.—Bradford and Lovett; Whitman.

*I*; lec., 1-18. Professor PORTER

6. OPERATIVE SURGERY.—Trevis; Bryant; Bickham; Wharton and Ochsner. *I*; lec., 2-36. Associate Professor FULLER

7. SURGICAL PATHOLOGY.—Beck. *I or II*; lab., 2-36.

8. LARYNGOLOGY, RHINOLOGY, AND OTOTOLOGY.—Ballenger. *One semester*; lec., 1-18. Professor BALLENGER

9. OBSTETRICS.—Normal pregnancy, labor, puerperium, and new born infant. *I, II*; lec. and rec., 2-72.

Associate professor YARROS, assisted by other members of the department.

10. LABORATORY DIAGNOSIS.—Supplementary to the regular work, students are required to do practical work in Laboratory Diagnosis in the Dispensary. *I or II*; lab., 8-64.

Assistant Professor GARDNER

11. MEDICAL JURISPRUDENCE.—Reese. *II*; lec., 1-18.

ELMER DEWITT BROTHERS, Lecturer

12. DISPENSARY CLINICS†.—*One semester*; 12-216.

13. MEDICAL CLINIC.—*I, II*; 2-72.

Professor TICE

14. MEDICAL CLINIC.—*I, II*; 1-36.

\*For explanation of abbreviations and description of courses see note on page 287 following "Description of Courses."

†The Dispensary is divided into ten departments.

During the junior year each student is required to attend the Dispensary two hours daily for one semester, during which time he takes a course of instruction in each of these departments.

The time is equally divided between the departments.

The two-hour period in Dispensary is estimated to be equal to one hour of didactic work.



15. MEDICAL CLINIC.—*I, II; 2-72.* Asst. Professor HEINTZ
16. MEDICAL CLINIC.—*I, II; 1-36.* Asst. Professor LEWISON
17. DERMATOLOGICAL CLINIC.—*I, II; 1-36.*  
Asst. Professor HARRIS
18. SURGICAL CLINIC (Orthopedic).—*I, II; 1-36.*  
Professor PORTER
19. SURGICAL CLINIC (Orthopedic).—*I, II; 2-72.*  
Associate Professor JACOBS
20. SURGICAL CLINIC.—*I, II; 2-72.*  
Associate Professor HUMISTON
21. SURGICAL CLINIC.—*I, II; 1-36.* Asst. Professor DYAS
22. SURGICAL CLINIC.—*I, II; 2-72.* Asst. Professor THOMPSON
23. LARYNGOLOGICAL CLINIC.—*I, II; 2-72.* Professor BALLENGER
24. LARYNGOLOGICAL CLINIC.—*I, II; 2-72.*  
Asst. Professor R. H. BROWN
25. LARYNGOLOGICAL CLINIC.—*I, II; 2-72.*  
Associate Professor J. C. BECK
26. OTOLOGICAL CLINIC.—*I, II; 1-36.* Professor PIERCE
27. GYNECOLOGICAL CLINIC.—*I, II; 2-72.*  
Assistant Professor McEWEN

## SENIOR YEAR\*

1. PRACTISE OF MEDICINE.—Osler's *Modern Medicine*; Osler; Strümpell; Eichhorst. *I, II; lec. and rec., 5-180.*  
Professor WILLIAMSON, Professor GOODKIND
2. NEUROLOGY.—Gowers. *I; lec. and rec., 4-72.*  
Professor METTLER
3. PSYCHIATRY.—Defendorf. *I; lec., 2-36.*  
Professor KING, Assistant Professor DARLING
4. DISEASES OF THE CHEST.—On the lungs, Lindsay. On the heart and arterial system, Colbeck. *I; lec., and rec., 3-54.*  
Professor TICE
5. PEDIATRICS.—Holt; Chapin and Pizek; Cotton. *I; lec., 3-54.*  
Professor EARLE, Assistant Professor BENSON
6. PRACTISE OF SURGERY.—*I, II; lec. and rec., 2-72.* Lectures:  
OCTOBER—Surgery of the Head and Neck, Professor DAVISON  
NOVEMBER—Surgery of the Thorax, Professor EISENDRATH  
DECEMBER—Surgery of the Stomach, Professor STEELE  
JANUARY—Surgery of the Duodenum and Intestines  
Professor OCHSNER

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\*For explanation of abbreviations and description of courses see note on page 287 following "Description of Courses."

FEBRUARY—Hernia and Post-operative Treatment

Professor OCHSNER

MARCH—Surgery of the Liver, Pancreas, and Spleen

Professor HARSHA

APRIL—Surgical Diseases and Injuries of the Bones

Professor HALSTEAD

MAY—Surgical Diseases and Injuries of the Bones

Professor HALSTEAD

7. GENITO-URINARY SURGERY AND VENEREAL DISEASES.—*II*; lec., 1-18. Professor EISENDRATH

8. OPHTHALMOLOGY.—Wood and Woodruff; De Schweinitz; May. *I*; lec., 1-18.

Professor WOOD, Associate Professor GAMBLE, Assistant Professor LORING, Assistant Professor FINDLAY

9. OBSTETRICS.—Pathological conditions and obstetric operations. *I, II*; lec., dem., and quiz, 2-72; exercises on the manikin, 12; hospital clinics in the University Hospital, 24; two weeks residence at the Chicago Lying-in Hospital and Dispensary.

Professor BACON and Associate Professor YARROS, assisted by the other members of the department.

10. GYNECOLOGY.—Byford; Penrose; Reed; Clarke's *Gynecological Diagnosis*. *II*; lec., 2-36. Professor BYFORD, Professor BARRETT

11. HYGIENE.—Bergey; Harrington; McFarland; Park. *II*; lec., 2-36.

12. HISTORY OF MEDICINE (Optional).—*I*; lec., 1-18.

BERNARD JOHN CIGRAND, Lecturer

13. AUTOPSIES.—*I*; 2-36.

14. DISPENSARY CLINICS (Optional).

15. MEDICAL CLINIC.—*I, II*; 2-72.

Professor WILLIAMSON

16. MEDICAL CLINIC.—*I, II*; 2-72.

Professor WILLIAMSON

17. MEDICAL CLINIC.—*I, II*; 1-36.

Professor GOODKIND

18. MEDICAL CLINIC.—*I, II*; 2-36.

Professor PATTON

19. MEDICAL CLINIC.—*I, II*; 2-72.

Professor TICE

20. NEUROLOGICAL CLINIC.—*I, II*; 1-36.

Professor KING

21. NEUROLOGICAL CLINIC.—*I, II*; 1-36.

Professor METTLER

22. NEUROLOGICAL CLINIC.—*I, II*; 1-36.

Assistant Professor H. I. DAVIS

23. PEDIATRIC CLINIC.—*I, II*; 1-36

Professor EARLE, Asst. Professor BENSON

24. PEDIATRIC CLINIC.—*I, II*; 1-36.

Associate Professor HESS

25. PEDIATRIC CLINIC.—*I, II*; 1-36.

Dr. FRENCH



|                                                                                     |                                                         |                                                               |
|-------------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------|
| 26.                                                                                 | SURGICAL CLINIC.— <i>I, II</i> ; 2-72.                  | Professor STEELE                                              |
| 27.                                                                                 | SURGICAL CLINIC.— <i>I, II</i> ; 2-72.                  | Professor DAVIS                                               |
| 28.                                                                                 | SURGICAL CLINIC.— <i>I, II</i> ; 2-72.                  | Professor HARSHA, Associate Professor E. M. BROWN             |
| 29.                                                                                 | SURGICAL CLINIC.— <i>I, II</i> ; 2-72.                  | Professor OCHSNER                                             |
| 30.                                                                                 | SURGICAL CLINIC.— <i>I, II</i> ; 1-36.                  | Professor DAVISON                                             |
| 31.                                                                                 | SURGICAL CLINIC.— <i>I, II</i> ; 2-72.                  | Professor DAVISON                                             |
| 32.                                                                                 | SURGICAL CLINIC (Genito Urinary).— <i>I, II</i> ; 2-72. | Professor EISENDRATH                                          |
| 33.                                                                                 | SURGICAL CLINIC.— <i>I, II</i> ; 2-72.                  | Professor HALSTEAD                                            |
| 34.                                                                                 | SURGICAL CLINIC.— <i>I, II</i> ; 1-36.                  | Professor EISENDRATH                                          |
| 35.                                                                                 | OPHTHALMOLOGICAL CLINIC.— <i>I, II</i> ; 1-36.          |                                                               |
| Associate Professor GAMBLE, Assistant Professor LORING, Assistant Professor FINDLAY |                                                         |                                                               |
| 36.                                                                                 | GYNCOLOGICAL CLINIC.— <i>I, II</i> ; 2-72.              | Professor BYFORD, Professor BARRETT, Assistant Professor LANG |
| 37.                                                                                 | GYNCOLOGICAL CLINIC.— <i>I, II</i> ; 2-72.              | Professor BARRETT                                             |
| 38.                                                                                 | OBSTETRICAL CLINIC.— <i>I, II</i> ; 1-36.               | Professor BACON                                               |

## TOTAL HOURS OF WORK

## FRESHMAN YEAR

|                                           | Didactic | Laboratory |
|-------------------------------------------|----------|------------|
| 1. Anatomy .....                          | 144      | 144        |
| 2. Biology .....                          | 18       | 36         |
| 3. Histology and Embryology.....          | 108      | 144        |
| 4. Physiology .....                       | 54       |            |
| 5. General Chemistry .....                | 144      | 216        |
| 6. Prescription Writing and Pharmacy..... | 18       | 18         |
| 7. Bacteriology .....                     | 36       | 108        |
| Total .....                               | 522      | 666        |
| Grand total .....                         |          | 1,188      |

## SOPHOMORE YEAR

|                                                                     | Didactic | Laboratory |
|---------------------------------------------------------------------|----------|------------|
| 1. Anatomy .....                                                    | 108      | 144        |
| 2. Physiology .....                                                 | 144      | 108        |
| 3. Physiological and Pathological Chemistry<br>and Toxicology ..... | 90       | 108        |
| 4. Pharmacology and Therapeutics.....                               | 180      | 64         |

# *Description of Courses*

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|                    |       |       |
|--------------------|-------|-------|
| 5. Pathology ..... | 72    | 144   |
| 6. Autopsies ..... |       | 36    |
|                    | <hr/> | <hr/> |
| Total .....        | 594   | 604   |
| Grand total .....  |       | 1,198 |

## JUNIOR YEAR

|                                             | Didactic and<br>Laboratory | Clinical |
|---------------------------------------------|----------------------------|----------|
| 1. Medicine .....                           | 216                        | 216      |
| 2. Physical Diagnosis .....                 | 54                         | 36       |
| 3. Dermatology .....                        | 36                         | 36       |
| 4. Surgery .....                            | 144                        | 252      |
| 5. Orthopedic Surgery .....                 | 18                         | 108      |
| 6. Operative Surgery.....                   | 36                         | ...      |
| 7. Surgical Pathology .....                 | 36                         | ...      |
| 8. Laryngology, Rhinology, and Otology..... | 18                         | 252      |
| 9. Obstetrics .....                         | 72                         | ...      |
| 10. Laboratory Diagnosis.....               | 64                         | ...      |
| 11. Medical Jurisprudence .....             | 18                         | ...      |
| 12. Dispensary Clinics .....                | ...                        | 216      |
|                                             | <hr/>                      | <hr/>    |
| Total .....                                 | 712                        | 1,116    |
| Grand total .....                           |                            | 1,828    |

## SENIOR YEAR

|                                              | Didactic | Clinical |
|----------------------------------------------|----------|----------|
| 1. Medicine .....                            | 180      | 216      |
| 2. Neurology .....                           | 72       | 72       |
| 3. Psychiatry .....                          | 36       | 36       |
| 4. Chest Diseases .....                      | 54       | 72       |
| 5. Pediatrics .....                          | 54       | 108      |
| 6. Surgery .....                             | 72       | 504      |
| 7. Genito-Urinary and Venereal Diseases..... | 18       | 72       |
| 8. Ophthalmology .....                       | 18       | 36       |
| 9. Obstetrics .....                          | 84       | 48       |
| 10. Gynecology .....                         | 36       | 144      |
| 11. Hygiene .....                            | 36       | ...      |
| 12. Autopsies .....                          | 36       | ...      |
|                                              | <hr/>    | <hr/>    |
| Total .....                                  | 696      | 1,308    |
| Grand total .....                            |          | 2,004    |



## SUMMARY

As will be seen by the foregoing tables, the college offers work in the several years as follows: In the freshman year 522 hours of didactic and 666 hours of laboratory instruction; in the sophomore year 594 hours of didactic and 604 hours of laboratory instruction, all of which are required. In the junior year, 1,828 hours of didactic and clinical instruction, and in the senior year, 2,004 hours of didactic and clinical instruction are presented. Of the clinics offered in the junior and senior years, the student is required to complete approximately 40 per cent of the work presented. At the time of registration, his course is designated and approved by the Secretary.

## FURTHER INFORMATION

For the special circular of the College of Medicine, address:

The SECRETARY OF THE COLLEGE OF MEDICINE  
Congress and Honore Streets, Chicago, Illinois.

# COLLEGE OF DENTISTRY

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For the faculty of the College of Dentistry, see page 50.

## LOCATION

The College is situated on the corner of Harrison and Honore streets in Chicago. It is located directly opposite the Cook County Hospital, in the center of the clinical field of Chicago, which insures at all times an abundance of clinical material. Adjoining the school on the west is the West Side Hospital; and on the north are the buildings of the College of Medicine of the University of Illinois.

## BUILDING AND EQUIPMENT

The six-story building in which the College is housed contains three amphitheaters, recitation rooms and lecture rooms, laboratories, dissecting rooms, a clinical operating room, and an infirmary. A parlor is provided for the use of the women attendants.

## LABORATORIES

The laboratories, each of which accommodates 120 students, occupy four floors. They are supplied with microscopes, immersion lenses, microtomes, and other necessary apparatus, including a projection apparatus for the illustration of lectures. Electric motors are in use in all laboratories. Adjoining the laboratories are preparation rooms for the use of the instructors and demonstrators.

## INFIRMARY

The infirmary occupies the top floor. It is provided with skylights, as well as with sidelights on three sides, and is divided into the operative, prosthetic, and orthodontia sections. These departments are equipped with new chairs of improved pattern, with fountain cuspidors attached, double-decked stands for accommodating students' operating cases, sanitary washbowls with hot and cold water, and a formaldehyde instrument sterilizer.



The infirmary has adjacent to it a prosthetic laboratory, in which the students can do their molding, soldering, and fusing. It is provided with compressed air apparatus, electric ovens for porcelain work, and electric lathes.

### LIBRARY AND MUSEUM

Students of the College of Dentistry have access to the Quine Library of the College of Medicine of the University of Illinois, which occupies an adjoining building. This is the second largest library of its kind in Chicago, containing more than 15,000 bound volumes. One hundred and twenty periodicals are received regularly. The library is under the care of a trained librarian and assistants.

The Chicago Public Library, the Newberry Library, and the John Crerar Library are accessible to the students of the college.

The Museum, which has been founded in connection with the college library, contains specimens of human and comparative anatomy.

### ADMISSION

An applicant for admission to the College of Dentistry must be at least 18 years of age. Women are admitted on the same conditions and under the same terms as men.

For admission to the College of Dentistry a candidate must present a certificate of graduation from an accredited high school; or an equivalent; which equivalent is interpreted to mean *fifteen (15) units\* of preparatory work in an accredited high school or academy or a state normal school.*

No "conditions" can be permitted; the full 15 units must be offered.

Entrance credits will be accepted on certificate from the sources outlined on page 94.

Information concerning the schedule of entrance examinations may be obtained from the Dean.

Applicants for admission coming from institutions of higher learning, whether candidates for the freshman class or for advanced standing, must present entrance credentials or pass entrance examinations as indicated above.

The College of Dentistry will receive no student who is not present within 10 days after the opening day of the session in each year, or in case of necessary delay by reason of illness, properly

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\*For a definition of the term "unit," see page 89.

certified by the attending physician, within 20 days after the opening day.

### ADMISSION TO ADVANCED STANDING

Persons who are qualified for admission to this college, and who have studied dentistry in other schools for at least one year, may be admitted to advanced standing after satisfying the faculty that they have completed an amount of work equivalent to that which is exacted by this college in the respective classes.

Students who have had one or more years in the College of Medicine, or in other medical colleges of equal rank, are allowed credit toward graduation for so much of the required course in dentistry as was included in their medical course. But they must be registered for full time.

Graduates of the University with the degree of Bachelor of Arts or Bachelor of Science, who have taken courses in biology and chemistry in the University, can secure advanced standing in the course in dentistry, if they have done full work in the science subjects required in the dental curriculum.

Graduates of recognized medical colleges may secure advanced credit for work, and one year of time toward graduation, and may be excused from lectures and examinations in general anatomy, chemistry, histology, pathology, and physiology, but are required to take lectures and examinations in dental subjects.

### LENGTH OF COURSE

The courses are graded and cover three years of college work. The teaching of one year is not repeated, and the course is progressive, the several classes having separate laboratories and at no time taking lectures or demonstrations together.

If, for any cause, a regular student desires to extend his studies over a period of four or more years, a course of study will be specially arranged for him.

### REQUIREMENTS FOR GRADUATION

The degree of Doctor of Dental Surgery will be conferred on students who shall have completed the course of instruction, attended the required time, and passed satisfactory final examinations. To be eligible for the degree, the student must be twenty-one years



of age, must possess a good moral character, and must have paid all fees.

The monthly report of attendance, and the standing of students in quizzes, recitations, laboratory work, and infirmary practise, both operative and prosthetic, are considered in making up the rating of final examinations.

## METHODS OF INSTRUCTION

Instruction is given by means of lectures, recitations, demonstrations, and laboratory work. The time of the student is about equally divided between laboratory and clinical work on the one hand, and lectures and recitations on the other.

Students are admitted to the laboratories from the beginning of the first year. The laboratory work is closely correlated with the lectures and clinical studies.

In the clinical work, methods both of investigation and of reasoning are carefully and systematically taught. Diagnosis, prognosis, and indications for treatment receive no less attention than methods of construction and the technic of procedures.

## SUMMARY OF COURSE

### FRESHMAN YEAR

MATERIA MEDICA.—One lecture a week

ANATOMY.—Two lectures a week; dissection of the median half of the human body

PHYSIOLOGY.—To the nervous system. One lecture a week

HISTOLOGY.—One lecture and two hours of laboratory work a week

CHEMISTRY.—Lectures and laboratory, six hours a week

OPERATIVE TECHNICS.—Four half days a week

PROSTHETIC TECHNICS.—Three half days a week (laboratory)

DENTAL HISTORY.—Ten lectures

DENTAL ANATOMY.—Fifteen lectures

### JUNIOR YEAR

ANATOMY.—Two lectures a week; dissection of the median half of the human body

PHYSIOLOGY.—The nervous system. One lecture a week

MATERIA MEDICA AND THERAPEUTICS.—One lecture a week

GENERAL PATHOLOGY.—One lecture a week

CHEMISTRY.—Three hours of laboratory a week

HISTOLOGY, GENERAL AND DENTAL.—One lecture and two hours of laboratory a week

PROSTHETIC DENTISTRY.—One lecture and two half days of laboratory a week; infirmary practise

ORTHODONTIA.—One lecture a week

ORTHODONTIA TECHNICS.—One-half day a week

OPERATIVE DENTISTRY.—Two lectures a week; infirmary practise

COMPARATIVE ANATOMY.—Ten lectures

#### SENIOR YEAR

DENTAL PATHOLOGY AND THERAPEUTICS.—Two lectures a week

ORAL SURGERY.—One lecture and two hours of clinic a week

ORTHODONTIA.—One lecture and four hours of clinic a week

DENTAL JURISPRUDENCE AND ETHICS.—Ten lectures

PROSTHETIC DENTISTRY.—One lecture a week; infirmary practise

OPERATIVE DENTISTRY.—Two lectures a week; infirmary practise

BACTERIOLOGY.—One lecture a week; laboratory

GENERAL ANESTHESIA AND PHYSICAL DIAGNOSIS.—Ten lectures

NEUROLOGY.—Eight lectures

PORCELAIN WORK.—One lecture and one-half day of laboratory a week

#### FEES

For a statement of the fees, see page 150.

Fees are not returned to students who are suspended or expelled or to those who are absent for any cause except illness. Payments should be made in currency or in Chicago exchange drawn to the order of the Secretary of the College of Dentistry.

*Fees are payable in advance.* Students unable to meet this requirement must make satisfactory arrangements with the Dean or Secretary at the beginning of the course.

#### FURTHER INFORMATION

For further information relating to the College of Dentistry, address:

THE DEAN OF THE COLLEGE OF DENTISTRY  
Harrison and Honore Streets, Chicago, Illinois



# THE SCHOOL OF PHARMACY

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For the faculty of the School of Pharmacy, see page 51.

## HISTORY

The School of Pharmacy was originally the Chicago College of Pharmacy and was incorporated under that name September 5, 1859. Prior to that time there were but three schools of pharmacy in the country, and these were located in the eastern states.

While the primary object of the institution was to provide instruction in the science and art of pharmacy, other functions were developed. Thus, a code of ethics was early adopted by the members; successful efforts were made to bring about better relations between pharmacists and physicians; the pioneer pharmaceutical library was established; and for eighteen years beginning with 1868 a monthly journal, *The Pharmacist*—the first of its kind in the West—was published.

In October, 1859, the first course of lectures was instituted, occupying three evenings a week for a period of six months. Of the first class, but two students were graduated in 1861. The war caused a suspension of the teaching, and the school was not reopened until 1870. The great fire of 1871 destroyed the equipment, but pharmacists throughout Europe and America extended help to the institution, furnishing a library and an outfit of apparatus, which became the nucleus of the present equipment. In 1872 the instruction was resumed for the second time and has since continued without interruption.

In 1880 the members and graduates of the College took an active part in the formation of the Illinois Pharmaceutical Association, which in the following year secured the passage of the pharmacy law.

The twenty-fifth anniversary of the founding of the College was signalized by the removal of the College to a larger building at 465 State street. Up to this time instruction had been given mainly by means of lectures, laboratory work being entirely optional. Laboratory courses in pharmacy, chemistry, and vegetable

histology were now made obligatory. A laboratory devoted entirely to prescription compounding was established in 1892.

The College was formally united with the University May 1, 1896, becoming the technical School of Pharmacy of the University of Illinois. In the management of the School, the Trustees and officers have the assistance of an advisory board of pharmacists, elected by the registered pharmacists of the State through the Illinois Pharmaceutical Association.

### LOCATION

The School of Pharmacy occupies the four upper floors in a building located at Michigan Boulevard and Twelfth Street. The building is a substantial brick structure, five stories in height, with a frontage of fifty feet on Michigan Avenue and one hundred seventy feet on Twelfth Street.

A half block east of the building is the Illinois Central Depot; and one block west are the Cottage Grove Avenue, Indiana Avenue, and Twelfth Street surface lines, and the Twelfth Street Station of the South Side Elevated Railroad.

On Michigan Avenue, immediately south of the School, are to be found some of the best low-priced boarding and rooming places in the city. Satisfactory accommodations may be readily secured within a short distance of the School.

### EQUIPMENT

The east end of the building is occupied by lecture halls, of which there are three, arranged one above the other and having a seating capacity of from one hundred fifty to three hundred persons.

The laboratories are six in number, including one each for qualitative analysis, quantitative analysis, special work in chemistry, microscopy, manufacturing pharmacy, and dispensing. The total capacity of these laboratories is sufficient for the accommodation of 348 students, working at one time.

The laboratories are supplied with compound microscopes, analytical balances, and special apparatus, and with collections of crude drugs, medicinal plants, chemicals, and pharmaceutical products.

The library contains about two thousand volumes, including, in addition to the usual works of reference, many rare books. Com-



plete files of the leading pharmaceutical journals are an important feature.

## COURSES OF INSTRUCTION

### FOR THE DEGREE OF GRADUATE IN PHARMACY

In the course leading to the degree of Graduate in Pharmacy the instruction is so arranged as to require the attendance of each student on three days each week and from twenty to twenty-one hours weekly during two annual sessions of thirty weeks each. This arrangement is advantageous to drug clerks who desire to spend a part of their time in drug stores while attending school, thereby adding to their practical experience and at the same time earning a part or all of their living expenses.

The subjects taught are chemistry, general, pharmaceutical, and analytical; pharmacy, theoretical, manufacturing, and dispensing; botany; physiology; and materia medica.

### FOR THE DEGREE OF PHARMACEUTICAL CHEMIST

To meet the demand for special training on the part of students who desire to pursue more extended courses in pharmaceutical chemistry, applied chemistry, and bacteriology, or to prepare themselves for positions under the Food and Drugs Act, this School offers a course leading to the degree of Pharmaceutical Chemist. It comprises two annual sessions of thirty-six weeks each, with instruction on five or six days each week, amounting to about thirty-three hours weekly, or a total of 2,300 hours in the entire course.

This course is partially concurrent with the shorter course and includes all the didactic instruction given in the latter. It consists largely of laboratory practise. In addition to the subjects mentioned above it embraces organic analysis and proximate assays, new remedies, analysis of urine, food and sanitary analysis, bacteriology, and applied microscopy.

The system of teaching includes lectures, illustrations, demonstrations, recitations, written and oral examinations, and individual practise and personal instruction in the various laboratories, much time being devoted to this important part of the student's work.

## ADMISSION

The regular session opens September 21, 1914. The shorter

course ends April 29, 1915; the longer course closes June 11, 1915.

Applicants for admission to the course leading to the degree of Pharmaceutical Chemist must be at least seventeen years of age and must be graduates of accredited high schools or furnish evidence of a preliminary education equivalent thereto.

Applicants for admission to the course leading to the degree of Graduate in Pharmacy must be at least seventeen years of age and must have completed two years' work in an accredited high school or the full educational equivalent.

Admission as special students, not candidates for a degree, is restricted to registered apprentices, assistants, or pharmacists, not less than twenty-one years of age.

Students who have pursued courses of study in other colleges of pharmacy will be given credit for such portions of their work as are equivalent to the work required by this college.

### GRADUATION

In conformity with the usual custom of pharmaceutical schools, drug store experience is not made a requirement for the degree of Pharmaceutical Chemist. Students who have satisfactorily completed the course will be awarded the degree upon the recommendation of the faculty.

For the degree of Graduate in Pharmacy this School has always required practical drug store experience. The actual time of attendance at the School, amounting to fourteen months, is credited as part of the four years of practical experience required for the degree. Candidates must have attained the age of twenty-one years and have satisfactorily finished the work leading to the degree. Students who have successfully met the scholarship requirement, but are lacking in age or in practical experience, will receive a certificate and will be awarded the diploma when the requirements of age and experience are satisfied.

Persons competent to fulfill the general requirements of admission to the University may be granted credits upon other University courses for equivalent work completed at the School of Pharmacy.

### STATE REGISTRATION

To become a registered pharmacist in Illinois, it is necessary to pass an examination before the State Board of Pharmacy, no diplomas being recognized.



The diploma of this School is, however, accepted in lieu of examination for registration in several states and territories; and in other states, including New York and Pennsylvania, where graduation prerequisite laws are in force, this School is among the schools recognized, and its diploma admits to the examination.

The amendments to the Illinois Pharmacy Law, in effect July 1, 1907, give credit, as a part of the "practical experience in compounding drugs" required by the law, for the actual time of attendance at a recognized school of pharmacy but not to exceed two years for registered pharmacist or one year for registered assistant pharmacist.

### FEES AND EXPENSES

For a statement of the fees, see page 150. Fees are payable in advance. Students unable to meet this requirement must make satisfactory arrangements with the Actuary at the beginning of the course.

BOARD AND LODGING.—Good board and lodging, within a short distance of the School, can be had for from five to six dollars per week. This expense may be somewhat reduced by two or more students rooming together. The Actuary keeps a list of suitable boarding and rooming places, with their rates.

SELECTION OF SEATS.—Seats in the lecture halls and desks in the laboratories will be assigned to students by the Actuary, in the order of enrollment. To enroll, junior students will fill out the matriculation blank and forward it to the Actuary, together with credentials for admission and the matriculation fee of five dollars; senior students will make a payment on tuition account of five dollars. It is of advantage to students to matriculate early.

OPPORTUNITIES FOR EMPLOYMENT.—The Actuary keeps a register of students desiring employment and of pharmacists wishing to employ students. Students desiring employment are invited to correspond with him.

### FURTHER INFORMATION

Further information may be found in the special announcement of this school, which may be obtained from the ACTUARY, SCHOOL OF PHARMACY, Michigan Avenue and Twelfth Street, Chicago.

# PART III

## DESCRIPTION OF COURSES





# DESCRIPTION OF COURSES

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## EXPLANATION

The arrangement of subjects in the following Description of Courses is alphabetical. The connections of allied departments are indicated by cross references.

Following the description of each course of instruction will be found the requirements, if any, for admission to that particular course. The sequence indicated by these prerequisites must be followed. For instance, under Art and Design 5, Painting, the prerequisites given are Art and Design 1, 2, and 3. These three courses must be completed before Course 5 may be taken.

If a course not required for graduation is selected by fewer than five students it may be withdrawn for the semester.

Graduate courses are numbered upward from 100.

Credit is reckoned in *semester hours*, or simply *hours*. An *hour* is one class period a week for one semester, or the equivalent in laboratory, shop, or drawing room. Graduate work is not recorded in credit hours, nor do the credit hours of undergraduate courses apply to graduate students enrolled in them.

The semester, and the number of *hours* each semester for which the course counts, are shown after each course, thus: *I, II; (2)*. The Roman figures indicate semesters; the Arabic numerals in parenthesis indicate *hours* of credit for *each semester* for undergraduates. The omission of a course for the current year is indicated by enclosing the entire description of such a course in brackets.



## ACCOUNTANCY

(See ECONOMICS.)

## AGRICULTURAL EXTENSION

FRED HENRY RANKIN, *Superintendent and Assistant to the Dean, with rank of Assistant Professor*

ARETAS WILBUR NOLAN, M.S., *Assistant Professor*

ALBERT WOODWARD JAMISON, M.S., *Associate*

AUGUSTA DILLMAN EVANS, A.B., *Assistant*

JOSEPH HARVEY CHECKLEY, B.S., *Assistant*

WILLIAM PITT MILLER, B.S., *Assistant*

1. PRINCIPLES AND METHODS OF HIGH SCHOOL AGRICULTURE.—Features of agricultural science and practise best adapted to high school conditions; the best order and methods for their presentation; suiting course and instruction to the needs of the school community; what laboratory work shall be given; what apparatus may be used; what field work is practical. Practise teaching provided through cooperation with the local high school. *II*; (5).

Assistant Professor NOLAN

*Prerequisite:* Two years' work in agriculture.

3. AGRICULTURAL EXTENSION TEACHINGS.—Extension enterprises and the way in which they may be of service to the people; farmers' institutes; agricultural extension schools; farmers' clubs and cooperative work in rural communities. *II*; (1).

Assistant Professor RANKIN, Mr. JAMISON

*Prerequisite:* Agricultural Extension 4.

4. COUNTRY LIFE PROBLEMS.—Problems of the farm; duties of citizenship; social, economic, and educational work in rural communities. Lectures. Required of all first-year students. *I, II*; (½).

Professor DAVENPORT and other members of the faculty

## AGRICULTURE

(See AGRICULTURAL EXTENSION, AGRONOMY, ANIMAL HUSBANDRY, DAIRY HUSBANDRY, HORTICULTURE, and VETERINARY SCIENCE.)

## AGRONOMY

\*CYRIL GEORGE HOPKINS, Ph.D., *Professor, Agronomy*

LOUIE HENRIE SMITH, Ph.D., *Professor, Plant Breeding*

JEREMIAH GEORGE MOSIER, B.S., *Professor, Soil Physics*

JAMES HARVEY PETTIT, Ph.D., *Professor, Soil Fertility*

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\*On leave.

LEONARD HEGNAUER, B.S., *Professor, Crop Production*  
 ORA STANLEY FISHER, B.S., *Assistant Professor, Soil Fertility*  
 FREDERICK CHARLES BAUER, B.S., *Associate, Soil Fertility*  
 ALBERT LEMUEL WHITING, Ph.D., *Associate, Soil Fertility*  
 AXEL FERDINAND GUSTAFSON, M.S., *Associate, Soil Physics*  
 HAROLD WILSON STEWART, B.S., *Associate, Soil Physics*  
 WILLIAM LEONIDAS BURLISON, M.S., *Associate, Crop Production*  
 EARL ARCHIBALD WHITE, M.S., *Associate, Farm Mechanics*  
 IRA WILMER DICKERSON, B.S., *Associate, Farm Mechanics*  
 KARL JOHN THEODORE EKBLAW, B.S., *Associate, Farm Mechanics*  
 ELMER TRYON EBERSOL, A.B., B.S., *Instructor, Crop Production*  
 CHESTER OTIS REED, B.S., *Instructor, Farm Mechanics*  
 MARVIN EDWARD JAHR, A.B., *Instructor, Farm Mechanics*  
 FORREST ADDISON FISHER, B.S., *Instructor, Soil Physics*  
 HOWARD JOHN SNIDER, B.S., *Assistant, Soil Fertility*  
 HARRY CHARLES GILKERSON, B.S., *Assistant, Soil Fertility*  
 HARRISON FRED THEODORE FAHRNKOPF, B.S., *Assistant, Soil Fertility*  
 WARREN RIPPEY SCHOONOVER, B.S., *Assistant, Soil Fertility*  
 ARTHUR FLOYD HECK, B.S., *Assistant, Soil Fertility*  
 ORR MILTON ALLYN, B.S., *Assistant, Crop Production*  
 EDWARD HARVEY WALWORTH, B.S., *Assistant, Crop Production*

#### COURSES FOR UNDERGRADUATES

Crops: Agronomy 7, 8, 22, 25

Soils: Agronomy 9, 10, 11, 12, 13, 23

Farm Mechanics and Buildings: Agronomy 1, 2, 3, 4, 17, 19, 20, 26, 27.

1. DRAINAGE.—Drainage and its surveying operations. Chaining, mapping, leveling, designing, setting grade stakes, laying tile. Lectures and laboratory first half semester; field work second half semester. II; (3). Mr. JAHR

2. FIELD MACHINERY.—Physics, including work, horse-power, resolution of forces, simple machines. Whiffletrees and hitches. Construction, principles of operation, adjustment, purchase, and care of implements for soil, seed, and feed preparation, and for seeding, cultivating, harvesting, and handling farm crops. Lectures and laboratory work including practise in troubles, adjustments, testing, and detailed study of field machines. I; (3). Mr. REED

3. FARM POWER MACHINERY.—Amount of power required for farm operations and its distribution as affected by season, crop system, size of farm; sources of farm power, including the horse



as a motor, windmills, waterpower, steam engine, hot air engines, electric motors,—their theory, operation, and economy; internal combustion engines and tractors,—their theory, operation, and economy, with special attention to magnetos and ignition; methods of applying power to field operations. Lectures and laboratory work. (Alternating with Mechanical Engineering 48 and 49 if desired.) *II*; (3). Mr. DICKERSON

4. FARM BUILDINGS.—Arrangement, design, construction, and cost; machinery sheds; granaries; corn cribs; chicken houses; swine houses; barns; dwelling houses. Drafting of buildings; lectures; assigned readings. *I*; (5). Mr. EKBLAW

7. ADVANCED FARM CROPS.—Origin, history, development, and value; botanical relations; structure and requirement of seed for best development; preparation of the seed bed; seeding; cultivation, tillage, and inter-tillage; harvesting; time of maturity for various uses; rotations, or succession of crops; systematic farming, distribution of labor, cost of production, consumption of products, residues, by-products; marketing; market conditions; losses in and cost of storage; the general utility of each crop, its place in a system of farming, or a rotation; special attention to Illinois conditions. Class, reference, laboratory, and field work. *II*; (5). Professor HEGNAUER

*Prerequisite:* Agronomy 25.

8. FIELD EXPERIMENTS.—Testing varieties of corn, oats, wheat, potatoes, and other farm crops; methods of planting corn, seeding grains, grasses, and other forage crops; culture of corn, potatoes, and sugar beets; practise in treating oats and wheat for smut, and potatoes for scab, and studying the effect upon the crops; combating cinch bugs and other injurious insects. Other practical experiments may be arranged with the instructor. *II*, and *summer vacation*; (2-5). Professor HEGNAUER

*Prerequisite:* Agronomy 25 and 7.

9. SOIL PHYSICS AND MANAGEMENT.—Origin of soil material; methods of formation; mechanical composition and classification; moisture; texture as affecting capillarity, osmosis, diffusion, temperature, aeration, and as affected by plowing, harrowing, cultivating, rolling, and cropping; wasting by washing; fall or spring plowing and drainage as affecting moisture, temperature, and root development; real and apparent specific gravity, porosity, water holding capacity, and capillary power; the physical effects of differ-

ent systems of rotation and of continuous cropping with various crops. Lectures; laboratory. *I*; (5).

Professor MOSIER, Mr. GUSTAFSON, Mr. STEWART, Mr. FISHER

*Prerequisite:* Chemistry 2 and 3, one unit in entrance physics, and one year of university work. Regular students are urged to take Chemistry 13a previous to this course, others consult instructor.

10. SPECIAL WORK IN SOIL PHYSICS.—Physical properties of special soils; centrifugal analysis of such soils; field observation of the effects of discing, harrowing, and rolling; time and depths of cultivation; soil moisture and temperature; effects of washing of soils; methods of prevention. *I* or *II*; (2-5).

Professor MOSIER, Mr. GUSTAFSON, Mr. STEWART, Mr. FISHER

*Prerequisite:* Agronomy 9.

11. SOIL BIOLOGY.—Activities of infusoria, fungi, algae, and bacteria in soils from the standpoint of soil fertility; fermentation of crop residues and green and farm manures and its effect upon insoluble plant food; fixation of atmospheric nitrogen, its transformations, use, and possible losses. Lectures; laboratory. *II*; (3).

Professor PETTIT, Dr. WHITING

*Prerequisite:* Agronomy 12; Botany 5.

12. SOIL FERTILITY, FERTILIZERS, ROTATIONS.—The influence of fertility upon the yield of various crops; effect of different crops upon the soil and upon succeeding crops; different rotations; ultimate effect of different systems of farming upon fertility and productivity; manures and fertilizers, their composition and value; soils cropped continuously with different crops and with a series of crops; the fertility of soils of different types or classes from different sections of Illinois. Lectures; laboratory. *II*; (5).

Professors HOPKINS, PETTIT, Assistant Professor FISHER, Mr. BAUER

*Prerequisite:* Chemistry 13a; Agronomy 9.

13. INVESTIGATION OF THE FERTILITY OF SPECIAL SOILS.—Soils in which the student is particularly interested. Determination of the nature and quantity of the elements of fertility; effect upon various crops of different fertilizers added to the soils, as determined by pot cultures, and by plot experiments; systematic study of similar work of experiment stations and experimenters. *I, II*; (2-5).

Professor HOPKINS, Professor PETTIT, Dr. WHITING

*Prerequisite:* Agronomy 12.



16. GERMAN AGRICULTURAL READINGS.—Special attention to soils and crops. The current numbers of German journals of agricultural science used as texts. *II*; (2).

Professor HOPKINS, Professor HEGNAUER

*Prerequisite*: Two years' work in German; Agronomy 12.

17. HARVESTING MACHINERY.—Expert work on grain binders, corn binders, mowers, hay rakes, loaders, and stackers. (For students preparing to do expert work on these machines in the field. Before registering in this course students are requested to consult instructor regarding requirements for successful experting.) *II*; (3). Mr. REED

18. INVESTIGATION AND THESIS.—*I, II*; (5-10).

Professors HOPKINS, MOSIER, SMITH, PETTIT, HEGNAUER

19. RESEARCH WORK IN FARM MECHANICS.—(Consult instructor regarding time and requirements.)

Mr. WHITE, Mr. DICKERSON, Mr. EKBLAW, Mr. JAHR, Mr. REED

20. CONCRETE CONSTRUCTION FOR AGRICULTURAL PURPOSES.—Materials; mixing and using; simple comparative tests; general specifications and estimates for walks, posts, tanks, floors, and foundations. *II*; (2). Mr. EKBLAW

22. PLANT BREEDING.—The improvement by breeding of field crops, including the grains, grasses, and legumes; selection; results obtained by various investigators. Lectures; assigned readings; demonstrations; laboratory. *II*; (2). Professor SMITH

*Prerequisite*: Botany 1; Chemistry 13a; Agronomy 25.

23. PLANT FOOD SUPPLIES.—The world's supply of plant food materials; utilization and conservation. *II*; (1). Professor PETTIT

*Prerequisite*: Agronomy 12.

25. FARM CROPS.—Plant growth; structure; habits and requirements; preparation of the seed bed; seed selection for productiveness; storing; care of stored grain to prevent deterioration in vitality, or loss in market requirements; grading and fanning of grain as a means of improvement; market grades of grain and grain judging; examination of grains for purity; testing for vitality; weeds; identification, methods of distribution, eradication, control; diseases of farm crops and methods of prevention. *I or II*; (4).

Professor HEGNAUER, Mr. BURLISON, Mr. WALWORTH, Mr. EBERSOL

26. FARM MECHANICS AND EQUIPMENT.—Elements of useful farm practise, agricultural mechanics, and farm equipment; rope-

tying and splicing, soldering, babbitting, pipe-cutting and fitting; principles of draft in farm mechanics; efficiency of machines; methods of power transmission; installation and operation of systems of water supply; plumbing, sewage disposal, heating, lighting, ventilating; power plants for the farm and for the house. *I* or *II*; (3). Mr. WHITE

27. DRAINAGE DESIGN.—Designing tile drainage systems from level note data and contour maps; estimating sizes, amounts, and cost of tile, and cost of systems complete; designing outlet open ditch systems for drainage districts, estimating sizes and costs; drainage district laws; preparing bids on contract jobs; advanced field work. *I*; (1-5). Mr. JAHR

*Prerequisite:* Agronomy I, or C. E. 21 or 22.

#### COURSES FOR GRADUATES

Students who wish to do their major work in agronomy must have had the major courses offered in that subject to undergraduates in the College of Agriculture of the University of Illinois, or the equivalent. While every one seeking a doctor's degree with agronomy as a major will be required to have a good knowledge of the whole field of agronomy, each student is expected to be especially prepared in some one of the following divisions of the field; soil fertility, plant breeding, soil physics, crop production, and soil biology.

Students who are taking their major work in other departments and choose agronomy as a minor must have had previously the work in chemistry, botany, and other fundamental sciences prescribed in the undergraduate courses for students of agronomy in the College of Agriculture, or the equivalent.

[101. SOIL INVESTIGATION.—Systems of soil investigation; sources of error and methods of control; interpretation of results. *Once a week*; *II*. Not given, 1913-14. Professor HOPKINS]

[103. SOIL HISTORY.—Different systems of agricultural practise and their ultimate effect upon the soil. *Once a week*; *II*. Not given, 1913-14. Professor HOPKINS]

112. PLANT BREEDING.—A detailed study of experiments at this station; methods and results reported from other states and from foreign countries. *Once a week*; *I*, *II*. Professor SMITH

*Prerequisite:* Botany I; Chemistry 13a.

118. INVESTIGATION.—Professors HOPKINS, MOSIER, SMITH, PETTIT, Dr. WHITING



## ANIMAL HUSBANDRY

(Including FARM MANAGEMENT)

HERBERT WINDSOR MUMFORD, B.S., *Professor, Animal Husbandry*HARRY SANDS GRINDLEY, D.Sc., *Professor, Animal Nutrition*— \*LOUIS DIXON HALL, M.S., *Assistant Professor, Animal Husbandry*WALTER CASTELLA COFFEY, M.S., *Professor, Sheep Husbandry*HENRY PERLY RUSK, M.S., *Assistant Professor, Cattle Husbandry*JAMES LLOYD EDMONDS, B.S., *Assistant Professor, Horse Husbandry*JOHN A DETLEFSEN, D.Sc., *Assistant Professor, Genetics*DANIEL OTIS BARTO, B.S., *Associate, Poultry Husbandry*WALTER FREDERICK HANDSCHIN, B.S., *Associate, Animal Husbandry*WALTER EDWARD JOSEPH, Ph.D., *Associate, Animal Husbandry*SLEETER BULL, M.S., *Associate, Animal Nutrition*WILLIAM HERSCHEL SMITH, M.S., *Instructor, Animal Husbandry*— VIRGIL AUGUSTUS PLACE, B.S., *Instructor, Animal Husbandry*— FRANCIS MARION SIMPSON, B.S., *Instructor, Animal Husbandry*WILBUR JEROME CARMICHAEL, B.S., *Assistant, Animal Husbandry*JOHN JONATHAN YOKE, *Assistant, Animal Husbandry*— JOHN RICHARD WELLS, B.S., *Assistant, Animal Husbandry*CHARLES IVAN NEWLIN, B.S., *Assistant, Animal Husbandry*

## COURSES FOR UNDERGRADUATES

Beef Cattle: Animal Husbandry 11a, 11b

Breeding, Feeding, Management, and Marketing: Animal Husbandry 6, 28, 29, 30, 32; Farm Management 1.

General Judging: Animal Husbandry 1a, 2a, 4a, 5, 11a, 22

Genetics: Animal Husbandry 30

Horses: Animal Husbandry 4a, 4b, 17

Meat: Animal Husbandry 10, 24

Nutrition: Animal Husbandry 7, 31

Poultry: Animal Husbandry 23

Sheep: Animal Husbandry 1a, 1b, 25, 27

Swine: Animal Husbandry 2a, 2b, 26

NOTE.—Students registered in advanced courses such as 22, 28, 29, and 32, will be required to participate in a tour of inspection of representative markets, farms, herds, flocks, and studs.

1a. SHEEP: BREEDS AND MARKET CLASSES.—Breeds extensively used for mutton and wool production; type, characteristics, and

\*On leave.

adaptability; market classes and grades of sheep and wool. Lectures; judging. *I*; (2). Professor COFFEY, Mr. PLACE

*Prerequisite:* Animal Husbandry 5 or its equivalent.

1b. SHEEP: BREEDING, FEEDING, AND MANAGEMENT.—Pure bred and grade flocks: feeding, housing, and shepherding. Lectures; reference readings. *I*; (3). Professor COFFEY, Mr. PLACE

*Prerequisite:* Animal Husbandry 5 and 6 or their equivalents.

It is advisable to take 1a and 1b simultaneously.

2a. SWINE: BREEDS AND MARKET CLASSES.—History of the leading breeds: type, characteristics, and adaptability; market classes and grades; market reports. Lectures; judging. *II*; (2).

Mr. CARMICHAEL

*Prerequisite:* Animal Husbandry 5 or its equivalent.

2b. SWINE HUSBANDRY.—Swine raising from the standpoint of market requirements and of economic production; breeding, housing, care, and feeding of swine for breeding purposes. *II*; (3).

Mr. CARMICHAEL

*Prerequisite:* Animal Husbandry 5 and 6, or their equivalents.

It is advisable to take 2a and 2b simultaneously.

4a. BREEDS OF HORSES AND MARKET CLASSES OF HORSES AND MULES.—History of the leading breeds; type, characteristics, and adaptability; market classes, grades, and requirements. Lectures; judging. *II*; (2). Assistant Professor EDMONDS, Mr. YOKE

*Prerequisite:* Animal Husbandry 5, or its equivalent.

4b. BREEDING, FEEDING, AND MANAGEMENT OF HORSES.—Methods: care of stallions, mares, and foals; of work horses and drivers at labor and idle; fattening horses for market. Lectures; assigned readings. *II*; (3). Assistant Professor EDMONDS, Mr. YOKE

*Prerequisite:* Animal Husbandry 5 and 6, or their equivalents.

It is advisable to take 4a and 4b simultaneously.

5. FUNDAMENTALS OF LIVE STOCK JUDGING.—The names and location of external parts of the various kinds of live stock, the use of the score card, comparative judging as a method, breed identification, and types of farm animals. Required in freshman year. *I* or *II*; (3). Professor COFFEY and members of the department

6. PRINCIPLES OF FEEDING AND BREEDING.—Classification, digestibility, and functions of feed nutrients; classification and feeding values of feed stuffs; feed requirements and calculation of balanced rations for farm animals.



Evolution of domesticated animals; history of systematic breeding and improvement; unit characters; range of variability; effects of selection; systems of breeding. Required in sophomore year. *I*; (3). Feeding: Dr. JOSEPH, Mr. BULL, Mr. NEWLIN.

Breeding: Mr. HANDSCHIN, Mr. SMITH.

7. PRINCIPLES OF ANIMAL NUTRITION.—Composition and fuel value of feeding stuffs; organic and inorganic food stuffs; digestion, absorption, and metabolism; elimination of metabolic products; coefficients of digestibility and nutritive value of feeding stuffs. *I*; (3). Professor GRINDLEY, Dr. JOSEPH, Mr. BULL, Mr. MITCHELL

*Prerequisite:* Animal husbandry 5 (or course formerly known as Animal Husbandry 21); Chemistry 13a.

9. INVESTIGATION AND THESIS.—*I* or *II*; (5-10).

10. MEAT.—Farm butchering, curing, and care of meats; yield, quality and values of meat and by-products, as related to breeding, feeding, and health of animals; classes, grades, and cuts of meat in wholesale and retail markets. *II*; (3). Assistant Professor HALL

*Prerequisite:* Animal Husbandry 5 and 6, or their equivalents.

11a. BEEF CATTLE.—Breeds and market classes; history of the leading breeds; beef type from the standpoint of the butcher, the feeder, and the breeder; classification and value of each grade according to current market reports. Judging; lectures; quizzes; assigned readings. *I*; (2). Assistant Professor RUSK, Mr. SMITH

*Prerequisite:* Animal Husbandry 5 or its equivalent.

11b. BEEF PRODUCTION.—Breeding and management of pure bred herds; breeding for market; combined beef and milk production; economic factors in cattle feeding; influence of age, grade, breed, condition, and sex; equipment; pork and manure as by-products of beef production. Lectures; quizzes; assigned readings (text book). *I*; (3). Assistant Professor RUSK, Mr. SMITH

*Prerequisite:* Animal Husbandry 5 and 6, or their equivalents.

It is advisable to take 11a and 11b simultaneously.

15.—DAIRY CATTLE.—(See Dairy Husbandry 2 and 16.)

[17. EDUCATION AND DRIVING OF THE HORSE.—Mental qualities, peculiarities, and limitations of the horse; education and training for labor or the road; correct driving; responsibilities of the driver; courtesies of the highway. Lectures; readings; practise. *II*; (2).

Not given, 1913-14.

Assistant Professor EDMONDS

*Prerequisite:* Animal Husbandry 4a and 4b; three semesters' work in the University or its equivalent.]

22. ADVANCED STOCK JUDGING.—Animal conformation, quality, and condition with reference to market and show yard requirements; the selection of horses, beef cattle, sheep, and swine, for feed lot, market, and exhibition; judging at live stock shows. *I*; (3).

Professor MUMFORD and instructors in charge of prerequisite courses

*Prerequisite:* Animal Husbandry 1a, 2a, 4a, 11a, or their equivalents. See note, page 314.

23. POULTRY: TYPES, BREEDS, AND VARIETIES.—Exhibiting and judging; principles of breeding; poultry houses and equipment; feeding, hatching, and brooding; market eggs and poultry; crate-fattening and dressing; diseases and their treatment. *II*; (5).

Mr. BARTO

*Prerequisite:* Animal Husbandry 5, or its equivalent.

[24. MEAT.—Influence of type, condition, age, sex, and feeds upon the yield and market grade of meat products. *II*; (2-5).

Not given, 1913-14.

Assistant Professor HALL

*Prerequisite:* Animal Husbandry 10, and 1a or 2a or 11a, three years' work in the University, or its equivalent.]

[25. WOOL.—Factors affecting quality, quantity, strength, and condition of wool. *II*; (2-5). Offered in alternate years, beginning second semester, 1915.

Professor COFFEY

*Prerequisite:* Animal Husbandry 1a, 1b; three years work in the University, or its equivalent.]

[26. SWINE HUSBANDRY.—Special problems in swine production. *II*; (2-5). Not given, 1913-14.

Mr. CARMICHAEL

*Prerequisite:* Animal Husbandry 2a, 2b; three years' work in the University, or its equivalent.]

27. SHEEP HUSBANDRY.—Factors determining the importance of the industry in leading sheep growing countries, particularly different parts of the United States. *II*; (2-5). Offered in alternate years, beginning second semester, 1914.

Professor COFFEY

*Prerequisite:* Animal Husbandry 1a, 1b; three years' work in the University, or its equivalent.

28. ADVANCED HISTORY OF BREEDS OF LIVE STOCK.—Horses, beef cattle, sheep, and swine. Methods of great breeders; performances and pedigrees of famous animals; breed type as exemplified in the University and other herds. Lectures; assigned readings; problems. *I*; (3-5). Professor MUMFORD and other members of the department



## Breeds offered, 1913-14

|                   |                               |
|-------------------|-------------------------------|
| Beef cattle ..... | Herefords, Galloways          |
| Horses .....      | Shires, American Saddlers     |
| Swine .....       | Poland Chinas, Chester Whites |
| Sheep .....       | Rambouillets, Oxford Downs    |

## Breeds offered, 1914-15

|                   |                            |
|-------------------|----------------------------|
| Beef cattle ..... | Shorthorns, Aberdeen Angus |
| Horses .....      | Percherons, Standard breds |
| Swine .....       | Berkshires, Duroc Jerseys  |
| Sheep .....       | Shropshires, Southdowns    |

*Prerequisite:* "a" and "b" courses in class of live stock elected.

See note, page 314.

29. SYSTEMS OF LIVE STOCK FARMING.—Management in live stock farming. Climate, soil, topography, location with reference to markets; the supply of land, labor, capital, and managing ability as factors in influencing the choice and adaptation of the various systems of live stock production. Planning of farms for mixed and live stock systems. II; (2). Mr. HANDSCHIN

*Prerequisite:* Animal Husbandry 5 and 6, and 6 hours credit from 1b, 2b, 4b, or 11b. Farm Management 1. See note page 314.

30. GENETICS.—Heredity; variation; Mendel's and Galton's Laws; dominance and segregation; gametic coupling and spurious allelomorphism; correlation; mutation theory; inheritance of acquired characters; prenatal influence; pure lines, selection, variability; modification of unit-factors. Practical application to breeding. Lectures; laboratory. II; (5). Assistant Professor DETLEFSEN

*Prerequisite:* Two years of university work, including ten hours in biology.

31. PRINCIPLES OF ANIMAL NUTRITION.—(Continuation of course 7). Carbohydrate, fat, protein, and mineral metabolism. The income and expenditure of matter and energy. Protein, mineral, and energy requirements for maintenance, growth, and production. Lecture; recitations; laboratory. I, II; (2-5).

Professor GRINDLEY, Dr. JOSEPH, Mr. BULL

*Prerequisite:* Animal Husbandry 7.

32. MARKETING LIVE STOCK.—Markets and methods of marketing live stock and their products. Advertising and sale of surplus pedigreed live stock. II; (2). Professor MUMFORD, Mr. SIMPSON

*Prerequisite:* Two years of university work. See note, page 314. (At least 4 credits in Animal Husbandry courses 1a, 2a, 4a and 11a.)

## COURSES FOR GRADUATES

Students entering graduate work in Animal Husbandry should have had a thoro training in the fundamental principles of the subject either in connection with or in addition to an agricultural course of study substantially equivalent to that offered in this University.

See courses 7, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, in undergraduate list, which are also open to graduate students.

103. LIVE STOCK EXPERIMENTATION.—Objects, methods, and the sources of error in experimental work dealing with the feeding, breeding and management of farm animals. Live stock experiments at this and other experiment stations. *I, II: Once a week; ( $\frac{1}{2}$  to  $1\frac{1}{2}$  units).* Professor DAVENPORT

110. ANIMAL NUTRITION.—The most recent scientific publications relating to the chemistry and physiology of the nutrition of the lower animals. The chemical and physiological changes and processes involved in the activities of animal life. Lectures; conferences; assigned readings; *I, II: three times a week; (1 unit).*

Professor GRINDLEY, Dr. JOSEPH

111. ANIMAL NUTRITION.—Methods employed in the examination and analysis of feeding stuffs; also animal substances including flesh, fat, bone, urine, feces, and manufactured animal products. Lectures; conferences; assigned readings; laboratory; *I, II: Two to five times a week; (1 to 2 units).* Professor GRINDLEY

112. INVESTIGATION.—

(a) Economic factors involved in the various phases of meat production.

(b) Systems of live stock farming.

(c) The valuation of pedigrees.

(d) Animal Nutrition. A research course in Animal Nutrition including digestion and metabolism experiments and biochemical studies connected with the nutrition of farm animals.

(a), (b), and (c), *I, II: once a week; (1 to 2 units).* Under the direction of Professor MUMFORD

(d), *I, II: daily; (1 to 2 units).* Under the direction of Professor GRINDLEY, Dr. JOSEPH

116. SEMINAR.—Subject for 1913-1914: Food requirements for growth and the fattening of farm animals. *I, II: ( $\frac{1}{4}$  unit).*

Members of the Staff



117. GENETICS.—The more important genetic experiments; the biological and mathematical methods employed; the validity of the conclusions. Lectures; conferences; assigned readings; laboratory problems. *I, II; (1 to 2 units)*. Assistant Professor DETLEFSEN

### FARM MANAGEMENT

I. ELEMENTARY FARM MANAGEMENT.—The factors of production in the farm business; systems of farming, their distribution, and adaptation; farm organization; the distribution of capital invested; planning of the farm; farm administration or operation; planning of work; handling of labor; developing management efficiency. Lectures; quiz. *II; (3)*. Mr. HANDSCHIN

*Prerequisite:* Three semesters of required work; Economics I or 2.

It is also very important that the student have credit or be registered in Accountancy II and Agronomy 12.

### ARCHITECTURE

LORING HARVEY PROVINE, B.S., A.E., *Professor*

NATHAN CLIFFORD RICKER, D.Arch., *Professor*

\*NEWTON ALONZO WELLS, M.P., *Professor, Architectural Decoration*

PERCY ASH, B.S., C.E., *Assistant Professor, Architectural Design*

WILLIAM C TITCOMB, A.B., B.S., *Assistant Professor of Architecture*

CHARLES RICHARD CLARK, B.S., *Associate, Architectural Construction*

ROBERT TAYLOR JONES, B.S., *Instructor*

ALLEN HOLMES KIMBALL, M.S., *Instructor, Architectural Design*

JOSEPH MITCHELL KELLOGG, M.Arch., *Instructor, Architectural Design*

FREDERICK KITSON COWLEY, *Instructor*

SAMUEL CHATWOOD BURTON, *Instructor*

JAMES HUTCHINSON FORSYTHE, M.Arch., *Instructor*

ANGELO BENEDETTO MARINO CORRUBIA, B.S., M.S., *Instructor*

HARRY YOUNG CARSON, B.S., *Assistant, Architectural Engineering*

WINIFRED FEHRENKAMP, B.L.S., *Librarian*

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\*On leave.

4. BUILDING SANITATION.—Plumbing, trap ventilation, removal of wastes; construction of water closets; drains, and systems of water supply; sewage disposal; water supply and fixtures in dwellings. (For architectural engineers.) Cosgrove's *Principles and Practise of Plumbing*. Recitations; lectures; designs for special problems. I; (2). Mr. CLARK

*Prerequisite:* Registration in Physics 6a, 6b; Architecture 43, 44.

5. GRAPHIC STATICS.—(For architectural engineers.) Similar to 45 and 46. *One lecture and nine hours drawing per week*. II; (4). Mr. CLARK, Mr. KIMBALL

*Prerequisite:* Architecture 43, 44; Theoretical and Applied Mechanics 8.

6. HISTORY OF ARCHITECTURE.—From the Egyptian period to modern times; effects of political, economic, and local conditions; influence of materials, climate, structural systems; architecture of the various countries and periods; evolution of architectural forms. Illustrated lectures; quizzes. (For architectural engineers.) I, II; (4). Professor RICKER

*Prerequisite:* Sophomore standing in architecture or architectural engineering.

8. ARCHITECTURAL DRAWING.—Perspective; shades and shadows; conventional rendering; relations of plans, elevations, and sections to each other; elementary architectural composition. (For architectural engineers.) *Nine hours drawing per week*. II; (3). Mr. KIMBALL

*Prerequisite:* General Engineering Drawing 1, Architecture 20.

10. ESTIMATING.—Methods and practise of estimating building costs. (For architectural engineers.) II; (1).

Professor PROVINE, Mr. CLARK

11. SEMINAR.—Assigned topics in History of Architecture; review of books; abstracts of current technical journals and other publications. I, II; (1). Professor RICKER

*Prerequisite:* Registration in Architecture 6.

13, 14, 15, 16. HISTORY OF ARCHITECTURE.—Covers approximately the same ground as Architecture 6. (For architects.) *Sophomore I, II; Junior I, II*; (2). Professor RICKER

*Prerequisite:* Architecture 31, 32.



15a. DESIGN.—(Architectural design for architectural engineers.) Order and plan problems. *Nine hours drawing per week. II; (3).*

Assistant Professor TITCOMB, Mr. KELLOGG, Mr. CORRUBIA

*Prerequisite:* General Engineering Drawing 1, 2; Architecture 20, 8.

19. ARCHITECTURAL ENGINEERING.—Advanced graphic statics applied to the analysis of metallic roofs of wide span; roof trusses of curved or unusual form and those supported by abutments and jointed, spherical, and conical trussed domes; the stone arch, vault, and dome, and of the Gothic system of vaults and buttresses; the strength of walls, dams, retaining walls, and large chimneys; the effect of moving loads on girders; construction and details of steel skeleton buildings. Problems in design for specified cases. Ricker's *Notes on Architectural Engineering. Nine hours drawing per week. I, II; (3).*

Professor PROVINE, Mr. CLARK

*Prerequisite:* Theoretical and Applied Mechanics 6, 7, 8, 9; Architecture 43, 44, 5.

20. ARCHITECTURAL AND FREEHAND DRAWING.—Freehand drawing from the cast; principles of architecture; architectural elements; walls, moldings, doors, windows, the Orders, etc. Lectures and sketching. (For architectural engineers.) *Two lectures and seven hours drawing per week. I; (3).*

Mr. KIMBALL

23, 24.—FREEHAND DRAWING.—Charcoal drawing from the cast. *Six hours drawing per week. I, II; (2).*

Professor WELLS, Mr. COWLEY

*Prerequisite:* Architecture 32.

25, 26. FREEHAND DRAWING.—Charcoal, pen, pencil, and water color drawing from the cast and from still life. Out-of-door sketching. *Six hours drawing per week. I, II; (2).*

Professor WELLS, Mr. COWLEY

*Prerequisite:* Architecture 24.

27, 28. FREEHAND DRAWING.—Water color drawing; original decorative composition; out-of-door sketching. *Six hours drawing per week. I, II; (2).*

Professor WELLS, Mr. BURTON

*Prerequisite:* Architecture 26.

30. ADVANCED ARCHITECTURAL ENGINEERING.—The working out of an extended problem in design or construction. *I, (1); II, (3).*

Professor PROVINE, Mr. CLARK

*Prerequisite:* Full senior standing.

31. ARCHITECTURAL AND FREEHAND DRAWING.—Practise with instruments, pen, pencil, and brush; lettering; shades and shadows;

perspective. Charcoal drawing from the cast. *One lecture and eleven hours drawing per week. I; (4).*

Mr. FORSYTHE, Mr. COWLEY

*Prerequisite:* Registration in G. E. D. 2.

32. ARCHITECTURAL AND FREEHAND DRAWING.—Elements of architecture; walls, moldings, doors, windows, the Orders, vaults, roofs, stairs. Wash rendering, stereotomy, charcoal drawing from the cast. Lectures and sketching. *One lecture and eleven hours of drawing per week. II; (4).*

Mr. FORSYTHE, Mr. COWLEY

*Prerequisite:* Architecture 31.

33, 34. DESIGN.—(Elementary). Rendered order problems and sketch problems involving simple composition; library research in elements of composition. *Nine hours drafting room per week. I, II; (3).*

Assistant Professor TITCOMB, Mr. KELLOGG, Mr. CORRUBIA

*Prerequisite:* Architecture 31, 32.

34a. ARCHITECTURAL ENGINEERING SEMINAR.—Current literature; written reports and discussions. *I; (1).* Professor PROVINCE

35, 36. DESIGN.—(Intermediate). Rendered plan problems and sketch problems; library research in plan and interior elements. *Fifteen hours drafting room per week. I, II; (5).*

Assistant Professor TITCOMB, Mr. KELLOGG, Mr. CORRUBIA

*Prerequisite:* Architecture 33, 34.

37. DESIGN.—(Advanced). Extended problems in original design. *Twenty-one hours drafting room per week. I; (7).*

Assistant Professor ASH

*Prerequisite:* Architecture 35, 36.

38. ADVANCED DESIGN OR THESIS.—The working out of an extended original problem in design or construction. *Twenty-one hours drafting room per week. I, II; (7).* Assistant Professor ASH

*Prerequisite:* Architecture 37.

43. WORKING DRAWINGS.—The growth, cutting, seasoning, working, and finishing of woods; structural and decorative properties; detailing at large scale various parts: floors, walls, roofs, doors, windows, cornices, stairs, wainscoating, cabinet-work, interior finish; preparation of working drawings. Kidder's *Building Construction, Part II*. *Two lectures and four hours drawing per week. I; (3).*

Mr. R. T. JONES

*Prerequisite:* General Engineering Drawing 2; Architecture 31,



44. WORKING DRAWINGS.—Foundations of stone, brick, concrete, and piles; materials employed in stone masonry; their uses, defects, qualities, and modes of preparation; kinds of masonry and external finish; tools for stone cutting and their use; brick masonry, its materials and bonds; terra-cotta design, manufacture, and use; detailing of columns, beams, girders, and footings; joints and connections. Preparation of working drawings. Kidder's *Building Construction and Superintendence. Part I. Two lectures and four hours drawing per week. II; (3).* Mr. R. T. JONES

*Prerequisite:* General Engineering Drawing 2; Architecture 31, 32.

45. GRAPHIC STATICS.—Elements of graphic statics and their application in the analysis of trussed roofs, steel and masonry arches, domes. The graphical representation of reactions, bending moments, shear and deflection in beams. (For architects.) Ricker's *Notes on Graphic Statics. One lecture and six hours drawing per week. I; (3).* Mr. CLARK, Mr. KIMBALL

*Prerequisite:* Theoretical and Applied Mechanics 14, 15, 16.

46. STRUCTURES.—Design of wooden and steel roofs; determination of section of members; design of joints; mill and steel skeleton construction. *One lecture and three hours drawing per week. II; (3).* Mr. CLARK, Mr. KIMBALL

*Prerequisite:* Architecture 45.

55. BUILDING SANITATION.—(For architects similar to Architecture 4). *I; (1).* Mr. CLARK

*Prerequisite:* Physics 6a, 6b; Architecture 43, 44.

59. DOMESTIC ARCHITECTURE.—(Given in connection with Household Science 2.) Lectures; criticism.

Assistant Professor ASH, Mr. CLARK, Mr. R. T. JONES

60. SPECIAL LECTURES.—Lectures on Estimating (For architects.) *One lecture per week. I, II; (1).*

In charge of Professor PROVINE

65, 66. THEORY OF ARCHITECTURE.—Influence of function on architectural form; theory of architectural composition in plan and elevation; problem analysis. Lectures; research; exercises. *I, II; (1).* Assistant Professor TITCOMB

*Prerequisite:* Architecture 33, 34.

67. THEORY OF FORM AND COLOR.—Principles underlying pleasing arrangements of form and color; rhythm and sequence; har-

mony and contrast; proportion and balance. Lectures; exercises. *I; (2).* Professor WELLS, Mr. BURTON

*Prerequisite:* Architecture 25, 26, 35, 36.

68. SPECIFICATIONS.—The general and special clauses of specifications and their arrangement; methods of classifying material to facilitate writing specifications. Practise in writing several sets; relations of the architect, owner, and builder; office organization; building ordinances; professional ethics. *II; (3).*

Professor PROVINE, Mr. CLARK

*Prerequisite:* First three years of the courses in Architecture or Architectural Engineering.

#### COURSES FOR GRADUATES

Entrance upon graduate work in architecture presupposes the full undergraduate course in that subject. Semi-weekly conferences are held and additional instruction given in all courses as may be required.

101. ARCHITECTURAL CONSTRUCTION.—Design of special structures. *Arrange hours; I, II.* Professors RICKER and PROVINE

102. SANITATION OF BUILDINGS.—The planning of sanitation, warming, and ventilation, for buildings of importance. *Arrange hours; I, II.* Professor RICKER, Mr. CLARK

103. ADVANCED ARCHITECTURAL GRAPHICS.—Advanced work in graphic statics, stereotomy, perspective, water color, and free-hand drawing. *Arrange hours; I or II.* Professors RICKER, PROVINE

104. ARCHITECTURAL DESIGN.—Advanced architectural design. *Arrange hours; I or II.* Assistant Professor ASH

105. ARCHITECTURAL PRACTISE.—Contracts, specifications, and office methods; architectural jurisprudence. *Arrange hours; I or II.*

Professors RICKER, PROVINE

106. ADVANCED ARCHITECTURAL HISTORY.—Special research in architectural history. *Arrange hours; I or II.*

Professor RICKER, Assistant Professor ASH

#### ART AND DESIGN

EDWARD JOHN LAKE, B.S., *Assistant Professor*

CHARLES FABENS KELLEY, A.B., *Associate*

MARY MINERVA WETMORE, *Instructor*

CHARLES EARL BRADBURY, B.P., *Instructor*

I. FREE-HAND DRAWING.—The principles of perspective; practise in drawing. *I, II; (2).*

Assistant Professor LAKE, Mr. BRADBURY



2. LIGHT AND SHADE.—Shaded drawing in monochrome. *II*; (2). Mr. BRADBURY  
*Prerequisite:* Art and Design 1.
3. ANTIQUE DRAWING.—Practise in drawing; study of artistic anatomy. *I, II*; (2). Mr. BRADBURY  
*Prerequisite:* Art and Design 1.
4. WATER COLOR PAINTING.—Still-life; flowers; landscapes. *I, II*; (3). Miss WETMORE  
*Prerequisite:* Art and Design 1, 2.
5. DRAWING FROM LIFE.—Posed model in costume. *I, II*; (2). Miss WETMORE  
*Prerequisite:* Art and Design 1, 2, 3.
6. PORTRAIT IN OIL COLOR.—Figure and portrait in costume. *I, II*; (2). Miss WETMORE  
*Prerequisite:* Art and Design 1, 2.
7. OIL PAINTING.—Still-life; flowers; landscape. *I, II*; (3). Miss WETMORE  
*Prerequisite:* Art and Design 1, 2.
8. MODELING.—Antique and figure; plaster casting. *I, II*; (2). Assistant Professor LAKE  
*Prerequisite:* Art and Design 1.
10. SKETCHING IN MONOCHROME.—General practise in pen and pencil. *II*; (1). Assistant Professor LAKE  
*Prerequisite:* Art and Design 1.
11. COMPOSITION.—Pictorial design. *II*; (1). Mr. KELLEY
12. DESIGN.—Theory and practise. *I, II*; (2). Mr. KELLEY  
*Prerequisite:* Art and Design 1.
13. DESIGN.—History and practise. *I, II*; (3). Mr. KELLEY  
*Prerequisite:* Art and Design 1, 12.
14. DESIGN.—Advanced practise. *I, II*; (3). Mr. KELLEY  
*Prerequisite:* Art and Design 1, 12, 13.
19. HISTORY OF THE FINE ARTS.—*I, II*; (2). Assistant Professor LAKE  
*Prerequisite:* One year of college work.

## ASTRONOMY

JOEL STEBBINS, Ph.D., *Professor*

FRANK WALKER REED, Ph.D., *Instructor*

JOHN DAVID BOND, A.B., *Research Assistant*

Instruction in astronomy is arranged both for general students and for those who desire to take up the science from its technical

side. Advanced students are given every opportunity to become familiar with the use of modern astronomical instruments. The equipment of the department is contained in the Astronomical Observatory. The principal instruments are a 12-inch refracting telescope by Warner and Swazey, and Brashear, a 30-inch short focus reflector by Brashear, and a 3-inch transit and zenith telescope. There are also two smaller equatorials, two Riefler clocks, and a considerable amount of minor apparatus such as chronometers, transits, sextants, spectroscopes, photometer, photographic outfit, and calculating machines. The astronomical library comprises about 1,500 volumes, and includes the important astronomical periodicals.

Students without mathematical training may elect course 1. Course 4 is for beginners, but requires a knowledge of trigonometry. Other courses should be taken in the order: 3, 6, 15, 14, 7.

#### COURSES FOR UNDERGRADUATES

1. ELEMENTARY ASTRONOMY.—Lectures; recitations; one evening a week at the observatory. (For beginners; mathematics not required.) *I*; (3). Professor STEBBINS, Dr. REED

3. GENERAL ASTRONOMY FOR ENGINEERS.—Descriptive astronomy; required with course 6. *II*; (3). Professor STEBBINS

*Prerequisite*: Mathematics 7 or 8.

4. GENERAL ASTRONOMY.—Lectures; recitations; two evenings a week at the observatory. *II*; (5). Dr. REED

*Prerequisite*: Mathematics 4.

6. PRACTICAL ASTRONOMY.—Rough and accurate determinations of latitude, azimuth, and time, especially with the ordinary surveyor's transit; the art of computing. *II*; (2).

Professor STEBBINS

*Prerequisite*: Mathematics 7 or 8.

#### FOR ADVANCED UNDERGRADUATES AND GRADUATES

7. THEORETICAL ASTRONOMY.—Celestial mechanics; theory of orbits; perturbations; canonical transformations. *I, II*; (3).

Dr. REED

*Prerequisite*: Mathematics 8 or 7 and 9.

9. CELESTIAL MECHANICS.—Properties of canonical systems of differential equations; integration by series; periodic and asymptotic solutions; integral invariants. *I, II*; (3). Dr. REED

*Prerequisite*: Mathematics 16; Astronomy 7.



14. OBSERVATIONAL ASTRONOMY.—The working methods of an astronomical observatory; individual problems. *II*; (3).

Professor STEBBINS

*Prerequisite:* Astronomy 15.

15. GEODETIC ASTRONOMY.—The sextant, transit, and zenith telescope; methods similar to those of the United States Coast Survey. *I*; (3).

Professor STEBBINS

*Prerequisite:* Mathematics 7 or 8.

#### COURSE FOR GRADUATES

101. SEMINAR AND THESIS.—*Three times a week, both semesters. (1 unit).*

Professor STEBBINS

#### BACTERIOLOGY

(See BOTANY 5, 6, 8, 18, 19, 103, 104, 105, 106, 107.)

BANKING (See ECONOMICS.)

#### BIOLOGY

(See BOTANY, ENTOMOLOGY, PHYSIOLOGY, and ZOOLOGY.)

#### BOTANY

(Including BACTERIOLOGY)

WILLIAM TRELEASE, D.Sc., LL.D., *Professor*

THOMAS JONATHAN BURRILL, Ph.D., LL.D., *Professor, Emeritus*

CHARLES FREDERICK HOTTES, Ph.D., *Professor*

\*FRANK LINCOLN STEVENS, Ph.D., *Professor, Plant Pathology*

OTTO RAHN, Ph.D., *Assistant Professor, Bacteriology*

STELLA MARY HAGUE, Ph.D., *Instructor*

WALTER BYRON McDUGALL, Ph.D., *Instructor*

JOHN HAMILTON WHITTEN, A.M., *Assistant*

ROSALIE MARY PARR, A.M., *Assistant*

REED O'SHEA BRIGHAM, B.S., *Assistant*

CLYDE ROSS NEWELL, M.S., *Assistant*

†BRONSON BARLOW, M.S., *Research Assistant*

ERNEST MICHAEL RUDOLPH LAMKEY, A.B., *Assistant*

LAWRENCE VREELAND BURTON, B.S., *Assistant*

JOHN MARVIN LECATO, A.B., *Assistant*

HARRY DWIGHT WAGGONER, A.B., *Assistant*

SAMUEL HAWTHORNE SCHERFEE, A.B., *Graduate Assistant*

\*Commencing Feb. 1, 1914.

†Resigned Nov. 1, 1913.

Courses numbered 1 to 19 inclusive are primarily for undergraduates; those numbered 101 to 106 inclusive are for graduates only. The undergraduate work may be roughly classified in four somewhat distinctive lines, viz: 1, anatomy and physiology (courses 1, 3, 7, 9, 12, 14); 2, morphology and taxonomy (courses 2, 4, 4a, 16 and 17); 3, bacteriology (courses 5, 6, 8, 18, 19.); 4, pathology, (Course 7). Course 11 is an introductory one. Courses 2, 4, 12, form together a general introduction to the science and may be elected by those who propose to go no farther or with equal propriety by those who are to pursue subsequently the more specialized work.

1. MORPHOLOGY AND PHYSIOLOGY OF THE FLOWERING PLANT.—General course, primarily for students in agriculture; *I or II*; (5). (Not acceptable for major credit in botany in the College of Liberal Arts and Sciences). Professor HOTTES, Dr. McDUGALL, Mr. WHITTEN, Miss PARR, Mr. BRIGHAM, Mr. LAMKEY, Mr. SCHERFEE, Mr. WAGGONER, Mr. LECATO

*Prerequisite:* Chemistry 1.

2. MORPHOLOGY.—The principal plant groups, beginning with the lower (thallophytes), by selected types. First semester: general survey of the plant world; second semester: seed plants (spermatophytes). Each semester's work is credited separately as 2a and 2b. *I, II*; (5).

Dr. HAGUE

*Prerequisite:* Entrance credit in botany, or Botany 11 (for 2b, Botany 11 or 2a).

3. CYTOLOGY AND PHYSIOLOGY.—First semester: cytology and histology, with special attention to technique. Second semester: influences of external stimuli on growth and movement. Lectures; laboratory; assigned reading. (Extends through the year, but the work of each semester is credited separately as 3a and 3b.) *I, II*; (5).

Professor HOTTES

*Prerequisite:* Botany 12.

4. TAXONOMY OF SPERMATOPHYTES.—Identification and classification of flowering plants. Lectures; assigned reading; laboratory; field excursions. *I*; (5).

Dr. HAGUE

*Prerequisite:* Entrance credit in botany, or Botany 11.

4a. TAXONOMY OF CULTIVATED PLANTS.—Morphology, identification, and classification of commonly cultivated plants. Laboratory work with complementary lectures and reading. Primarily for students in the College of Agriculture. Professor TRELEASE

*Prerequisite:* One semester of botany or its equivalent.



5. BACTERIOLOGY.—General principles; methods of procedure; selected forms. Lectures; recitations; laboratory work. *I or II*; (5). (Course given in the first semester is repeated in the second.)

Assistant Professor RAHN, Mr. NEWELL

*Prerequisite:* Chemistry 1; one year's university work, including one semester in botany or zoology.

6. BACTERIOLOGY FOR SANITARY ENGINEERS.—Bacteriological methods; water analysis and sewage. *I, last seven weeks*; (2).

Assistant Professor RAHN, Mr. NEWELL

7. PLANT PATHOLOGY.—First semester: the more important diseases of cultivated plants, their causes, and methods of prevention; second semester: methods of investigation and control. (Each semester's work credited separately as 7a and 7b.) *I, II*; (5).

Professor STEVENS

*Prerequisite:* Botany 12; 2 or 4.

8. APPLIED BACTERIOLOGY.—Decay of organic matter in nature; water bacteriology; sewage bacteriology; food bacteriology; pathological bacteriology. *II*; (5).

Assistant Professor RAHN

*Prerequisite:* Botany 5.

9. CYTOLOGY AND PHYSIOLOGY, ADVANCED COURSE.—Special laboratory problems in cytology and physiology. Critical discussions of current literature; reports on research work. *I, II*; (2-5).

Professor HOTTES

*Prerequisite:* Two years' work in botany, including Botany 3.

10. CURRENT LITERATURE.—Reports and discussions upon assigned topics and results of research work. (For advanced and graduate students.) *I, II*; (1).

11. INTRODUCTORY COURSE.—Flowering plants, their structure and activities. Lectures; laboratory; field observations; text. *I*; (5).

Professor HOTTES, Dr. McDougall, Mr. Whitten, Miss Parr, Mr. Lamkey, Mr. Waggoner

12. PHYSIOLOGY.—The growth of the plant members and their response to stimuli. *II*; (5). Professor HOTTES and assistants

*Prerequisite:* Botany 11.

13. PHOTOGRAPHY.—Practise in the photography of plants in field and laboratory; production of prints for reproduction; photomicrography. *II*; (2).

Professor HOTTES

*Prerequisite:* Two years' work in botany, senior standing.

14. HEREDITY AND ORIGIN OF SPECIES.—The plant cell; the physiology of its different constituents and the parts these play in the process of fertilization; various theories of heredity and of species formation. Lectures; demonstrations; laboratory. *I*; (3).

Professor HOTTES

*Prerequisite:* One year's work in the University; one semester in botany or zoology.

16. TAXONOMY OF SPECIAL GROUPS.—Laboratory and herbarium work; assigned reading. (The course extends through the year, but the work of each semester is credited separately as 16a and 16b.) *I, II*; (5).

Professor STEVENS, Dr. HAGUE

*Prerequisite:* Botany 4.

17. TAXONOMIC AND DESCRIPTIVE PRACTISE.—Monographic treatment of selected natural or ecological groups of higher plants, with thesis. Laboratory and field work; assigned reading; seminar conferences. *I, II*; (3).

Professor TRELEASE

*Prerequisite:* 10 hours of botany and junior standing.

18. JOURNAL MEETING.—Required of all students specializing in bacteriology. *I, II*; (1).

Assistant Professor RAHN

*Prerequisite:* Botany 5.

19. BACTERIOLOGY.—Elementary course arranged for graduate students in science, *I, II*; (5).

Assistant Professor RAHN

*Prerequisite:* Chemistry 1, 2, and 3.

26. MEDICAL BACTERIOLOGY.—*II*; (5).

Dr. BEARD

*Prerequisite:* The consent of the instructor.

#### COURSES FOR GRADUATES

After at least one year of approved botanical work graduates may elect any of the courses 3, 5, 7, 8, 9, 10, 16, or 17, for minor credit and any of the courses 3, 7, 8, 9, with assigned additions for major credit towards an advanced degree.

The following are open only to graduates of liberal botanical training and may, upon approval, be elected for minor or major work.

101. CYTOLOGY.—The influence of external agents on the cell. Special subjects for investigation assigned upon consultation. Reports; discussions of current literature and research results. *Twice a week*; *I, II*; (1 or 2 units).

Professor HOTTES

102. PHYSIOLOGY.—The effects of external stimuli on growth and movement. Special subjects for investigation assigned upon consultation. Reports; discussions of current literature and research results. *Twice a week*; *I, II*; (1 or 2 units).

Professor HOTTES



103. BACTERIOLOGY.—Morphologic and physiological variation due to treatment; the number, validity, and relationship of species; special saprophytic or parasitic kinds of bacteria, and methods of favoring or combating their activities. *Twice a week; I; (1 unit).* Assistant Professor RAHN

104. MYCOLOGY.—Selected groups of fungi. Individual assignments of subjects and problems. Field and laboratory. *Twice a week; I, II; (1 unit).* Professor STEVENS

105. BACTERIOLOGY.—Variability of species; characters; mutations; standard and biometrical classification. *Twice a week; I, II; (1 unit).* Assistant Professor RAHN

106. VEGETABLE PATHOLOGY.—Diseases of plants and disease agents. Special subjects assigned upon consultation. *Twice a week; I, II; (1 unit).* Professor STEVENS, Assistant Professor RAHN

107. BACTERIOLOGY RESEARCH.—Research in physiology of bacteria, and food bacteriology. Reports and discussions of current literature and research results. *Twice a week; I, II; (1 or 2 units).* Assistant Professor RAHN

## CERAMICS

RAY THOMAS STULL, E.M., *Acting Director*

RALPH KENT HURSH, B.S., *Instructor*

BARNEY S RADCLIFFE, M.S., *Instructor*

ARTHUR EDWARDS WILLIAMS, B.S., *Assistant*

CHARLES CLAFLIN RAND, B.S., *Assistant*

The courses offered by the department of ceramics are designed to give a technical knowledge of the composition and properties of raw materials used in the manufacture of clay wares, cements, and glasses, and of the physical and chemical changes which they undergo during manufacture; manual skill in the manipulation of these materials; and such knowledge of machines and the applications of power as will enable the student to acquire familiarity with the construction and operation of a manufacturing plant; to understand the peculiarities of the materials with which he is to deal; and to install such machinery and introduce such methods of manufacture as will improve the quality and reduce the cost of the wares.

For the more technical work the department occupies a building especially designed for its needs. The lecture rooms, laboratories, kiln and furnace building, drawing rooms, and library are well equipped.

The relations of the department with the clay working interests of the State are such that investigation is as much a part of its work as is instruction. Consequently, studies of both a purely scientific and a practical nature are continually in progress. Advanced students are permitted to take part in these investigations under the direction of the instructors. Seniors and graduate students are expected to conduct investigations of their own in some line of work in which they are especially interested. (For outlines of courses see pages 179 and 180.

1. CLASSIFICATION AND PHYSICAL TESTING OF CLAYS.—The properties of clays and other ceramic materials; the identification of the varieties met in practical work. Lectures; laboratory. *I*; (3). Mr. HURSH

*Prerequisite:* Chemistry 2, 3.

2. WINNING AND PREPARATION OF CLAYS.—Commercial methods. *I*; (3). Mr. RADCLIFFE

*Prerequisite:* Chemistry 5b.

3. INDUSTRIAL CALCULATIONS.—The designing and operation of furnaces, kilns, and dryers; temperature measurements; ceramic stoichiometry. *I*; (3). Mr. HURSCH

*Prerequisite:* Mathematics 8; Chemistry 5b; Physics 1 and 3.

4. DRYING AND BURNING.—Methods of drying and burning clay wares; types of construction of industrial kiln plants; chemical and physical processes involved. *I*; (4). Mr. STULL

*Prerequisite:* Ceramics 1, 3.

5. BODY MAKING.—Composition of all classes of ceramic wares; physical and chemical changes produced by the blending of the various ceramic materials; machinery and processes employed in shaping the various products. Lectures; laboratory. *II*; (5).

Mr. STULL, Mr. RADCLIFFE

*Prerequisite:* Ceramics 3.

6. GLAZES.—The production of glazes and enamels; limits of composition; classification; properties and defects common to each class; the effect of variation in composition; modes of application. Lectures; laboratory. *I*; (5). Mr. STULL

*Prerequisite:* Ceramics 3, 4, 5.

8. PRINCIPLES OF GLASS MANUFACTURE.—The raw materials preparation, compounding, melting, and shaping of glass; chemical principles involved in the manufacture and decoration of the different types of vitreous silicates. Lectures. *II*; (3). Mr. STULL

*Prerequisite:* Ceramics 3, 6.



9. CERAMIC CONSTRUCTION.—Plans, specifications, and estimates of ceramic construction. *II*; (5). Mr. STULL, Mr. HURSH

*Prerequisite*: G. E. D. 2; Ceramics 3, 4.

10. CEMENTS.—Limes, cements, plaster, sand-lime, brick, and other cementing materials; composition; reactions; methods of manufacture and testing. Lectures. *I*; (3). Mr. HURSH

*Prerequisite*: Ceramics 3.

11. THESIS.—*II*; (5).

Mr. STULL, Mr. HURSH

12. DESIGNING AND SHAPING.—Technical designing and shaping from the standpoint of the manufacturer; die construction; laying out of work; templates; master and working molds; pressing; casting; jiggering. *II*; (3). Mr. RADCLIFFE

*Prerequisite*: Ceramics 1 or 2.

13. CEMENT LABORATORY.—The preparation of cementing substances; properties; typical reactions involved in the manufacture and use of lime, lime-sand products, pozzuolane, Sorel cement, natural and Portland cement; the behavior of the hardened products under the influence of the various agencies to which they are subjected in use. *I*; (3). Mr. HURSH

*Prerequisite*: Ceramics 10.

14. CONTINUATION OF COURSE 13.—The production of water proof and sea water resisting cements; cement colloids; polychrome pigments for fresco decoration; cement colors; cold water paints. *II*; (3). Mr. HURSH

*Prerequisite*: Ceramics 13.

15. THE PREPARATION OF GLASS SILICATES.—Soda-lime; potash-lime; lead, barium, and zinc silicates; boro silicates; properties of the fused and solidified glasses; practical problems of the glass industry. *I*; (3). Mr. STULL

*Prerequisite*: Ceramics 8.

16. CONTINUATION OF COURSE 15.—Opaque, colored, and optical glasses; the enameling of metals; cast iron; sheet iron; copper. *II*; (3). Mr. STULL

*Prerequisite*: Ceramics 15.

#### COURSES FOR GRADUATES

Courses open to graduates of courses other than ceramics to be taken as minors: Ceramics 3, 5, 6, 8, 10, 14.

104. THE TECHNOLOGY OF GLASS.—Fusion curves of glassy silicates; limiting compositions; solubility of the oxides in glasses;

devitrification; annealing; optical properties; solubility of glass; viscosity; thermal expansion; pyro-chemical volume changes; reaction of coloring oxides; cooling curves; flashing; interaction between metal surfaces and glasses; oxidation and reduction. *Five times a week; I, II; (1 unit).* Mr. STULL

## CHEMISTRY

WILLIAM ALBERT NOYES, Ph.D., LL.D., *Professor and Director*

SAMUEL WILSON PARR, M.S., *Professor*

HARRY SANDS GRINDLEY, D.Sc., *Professor*

EDWARD BARTOW, Ph.D., *Professor*

CLARENCE WILLIAM BALKE, Ph.D., *Professor*

EDWARD WIGHT WASHBURN, Ph.D., *Professor*

DAVID FORD MCFARLAND, Ph.D., *Assistant Professor*

GEORGE MCPHAIL SMITH, Ph.D., *Assistant Professor*

CLARENCE GEORGE DERICK, Ph.D., *Assistant Professor*

HENRY CHARLES PAUL WEBER, Ph.D., *Assistant Professor*

DUNCAN ARTHUR MACINNES, Ph.D., *Instructor*

GEORGE DENTON BEAL, Ph.D., *Instructor*

B SMITH HOPKINS, Ph.D., *Instructor*

LAMBERT THORP, Ph.D., *Instructor*

CHARLES GEORGE MACARTHUR, A.M., *Instructor*

STUART JEFFREY BATES, Ph.D., *Instructor*

HENRY JOHN BRODERSON, Ph.D., *Instructor*

LESLIE DENIS SMITH, Ph.D., *Instructor*

CHARLES HENRY HECKER, Ph.D., *Instructor*

BRONISLAV ROMAN HONOVSKI, Ph.D., *Research Assistant*

GEORGE WALLACE SEARS, M.S., *Assistant*

HARVEY PEACH CORSON, M.S., *Assistant*

OLIVER KAMM, M.S., *Assistant*

CHARLES KAY HEWES, B.S., *Assistant*

BERT STOVER DAVISSON, A.B., *Assistant*

EDGAR WALLACE ENGLE, B.S., *Assistant*

JOHN WILLIAM READ, M.S., *Assistant*

GERRIT JOHN VANZOEREN, A.B., *Assistant*

THOMAS ERNEST LAYNG, A.M., *Assistant*

CHESTER HARMON ALLEN, A.B., *Assistant*

ERNEST ATKINS WILDMAN, B.S., *Assistant*

RAYMOND WASHINGTON HESS, A.B., *Assistant*

SCOTT CHAMPLIN TAYLOR, B.S., *Assistant*

HARRY FLETCHER LEWIS, M.S., *Assistant*



LAWRENCE FLEMING FOSTER, A.B., *Assistant*  
\*PAUL ANDERS, *Assistant, Glass Blowing*  
KARL ADOLPH CLARK, A.M., *Graduate Assistant*  
ROBERT EARL BAKER, A.B., *Graduate Assistant*  
EVERETT HARVEY TAYLOR, A.B., *Graduate Assistant*  
JUANITA ELIZABETH DARRAH, A.B., *Graduate Assistant*  
CLARENCE SCHOLL, B.S., *Graduate Assistant*  
HOWARD DEWITT VALENTINE, B.S., *Graduate Assistant*  
HENRY JOSEPH WEILAND, B.S., *Graduate Assistant*  
ROSS EARLBY GILMORE, A.B., *Graduate Assistant*  
DUANE TAYLOR ENGLIS, A.B., *Graduate Assistant*  
ERNEST EDWARD CHARLTON, A.B., *Graduate Assistant*  
STEWART DENT MARQUIS, A.B., *Graduate Assistant*  
RALPH WALDO TIPPET, A.B., *Graduate Assistant*  
THEODORE RALLY BALL, B.S., *Graduate Assistant*  
HERBERT MELVILLE CARTER, B.S., *Graduate Assistant*  
EDWARD WICHES, A.B., *Graduate Assistant*  
HARRY CLEVELAND KREMMERS, A.B., *Graduate Assistant*  
WILLIAM ASBURY MANUEL, A.B., *Graduate Assistant*

The Department of Chemistry is organized under nine divisions as follows:

- Elementary and Inorganic Chemistry
- Qualitative Analysis
- Quantitative Analysis, including Agricultural and Food Analysis
- Organic Chemistry
- Physiological Chemistry
- Animal Nutrition
- Physical Chemistry and Electrochemistry
- Industrial Chemistry, including Metallurgy, Gas Analysis, and Assaying
- Water Chemistry

Each of these divisions is equipped with rooms and apparatus for elementary, advanced, and graduate work. The nature of the work is apparent from an examination of the courses described below.

Students taking chemistry at the University are advised to give at least one year to the subject, and this should include Chemistry 1 or 1a, 2, and 3. Those continuing in the second year should take Chemistry 5a and 5b, 5c or 13a. In the third year Chemistry 14 or 9, 9a, and 9b, or 9c, 31, and 33 should be taken. With these, more special courses may be taken if desired, but, in general, students are

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\*Beginning February 1, 1914.

not advised to take the special courses unless they have had the fundamental work represented by the selection given above. Students who desire a training for professional work in chemistry, either as teachers or in its industrial applications, will naturally take the chemical course or the course in chemical engineering.

Students who find it impossible to take more than one semester's work are requested to register for Chemistry 1 or 1a in the second semester rather than in the first.

1. INORGANIC CHEMISTRY.—The non-metallic elements. Noyes's *Text-book of Chemistry*. I or II; (5).

Professor NOYES, Professor BALKE, Dr. HOPKINS, Dr. HECKER

1a. INORGANIC CHEMISTRY.—Lectures; recitations; laboratory. I or II; (4).

Professor NOYES, Professor BALKE, Dr. HOPKINS, Dr. HECKER

*Prerequisite:* One year of entrance chemistry.

1b. INORGANIC CHEMISTRY.—Inorganic chemistry. Lectures; recitations; laboratory. (For students in engineering.) I or II; (4). Professor NOYES, Professor BALKE, Dr. HOPKINS, Dr. HECKER

2. INORGANIC CHEMISTRY.—A continuation of Chemistry 1. The metallic elements; their classification, compounds, and chemical properties. Lectures; assigned text. Noyes's *Textbook of Chemistry*. I or II; (2).

Professor NOYES, Professor BALKE, Dr. HOPKINS, Dr. HECKER

*Prerequisite:* Chemistry 1; registration in Chemistry 3.

3. QUALITATIVE ANALYSIS.—Recitations; laboratory. I or II; (3). Assistant Professor WEBER, Dr. HOPKINS, Dr. HECKER

*Prerequisite:* Chemistry 1; registration in Chemistry 2.

4. QUALITATIVE ANALYSIS AND THE CHEMISTRY OF THE METALLIC ELEMENTS.—Class and laboratory work. (For students in engineering.) I; (4). Assistant Professor WEBER

*Prerequisite:* Chemistry 1a or 1b.

5a. ELEMENTARY QUANTITATIVE ANALYSIS.—Gravimetric and volumetric analysis; stoichiometrical relations and the application of the fundamental laws of chemistry to quantitative analysis. Lectures; recitations; laboratory. Talbot's *Quantitative Chemical Analysis*. (Medical students are given special problems in the latter part of the course.) I, II; (5).

Assistant Professor SMITH, Dr. BEAL, Dr. BATES

*Prerequisite:* Chemistry 2, 3.

5b. QUANTITATIVE ANALYSIS.—Continuation of 5a. Methods; the analysis of silicates, metallic compounds, and alloys; advanced



qualitative analysis for students in the courses in chemistry and chemical engineering. Lectures; laboratory. Treadwell-Hall: *Analytical Chemistry*, Vol. II. II; (5).

Assistant Professor SMITH, Dr. BATES

*Prerequisite:* Chemistry 5a.

5c. FOOD ANALYSIS.—Quantitative organic analysis, with special reference to the examination of food and drug products: alcohols, carbohydrates, fats and oils, animal and vegetable foods, nitrogenous bodies, preservatives, and colors. Sherman's *Organic Analysis*; "Bulletin 107, rev., U. S. Bureau of Chemistry." II; (3 to 5).

Dr. BEAL

*Prerequisite:* Chemistry 5a or 13a; 9 or 14.

6\*. CHEMICAL TECHNOLOGY.—Technological chemistry as illustrated in those industries having a chemical basis for their principal operations and processes; trade journals. Lectures; recitations. Rogers and Aubert's *Industrial Chemistry*. II; (2).

Assistant Professor McFARLAND

*Prerequisite:* Chemistry 5a.

7\*. METALLURGY.—General metallurgy; metallurgy of iron and steel; metallurgy of the non-ferrous metals. Lectures; assigned reading; recitations. Fulton's *Principles of Metallurgy*; Stoughton's *Iron and Steel*. I; (3).

Assistant Professor McFARLAND

*Prerequisite:* Chemistry 5a.

8. IRON AND STEEL ANALYSIS.—Analyses of all the constituents by both rapid, or technical, and standard methods. II; (3).

Assistant Professor SMITH

*Prerequisite:* Chemistry 5b.

9. ORGANIC CHEMISTRY.—The characteristics of the more typical and simple organic compounds; the important classes of derivatives of carbon. (For students of the medical preparatory course and others desiring a short course.) II; (3).

Assistant Professor DERICK

*Prerequisite:* Chemistry 3.

9a. ORGANIC SYNTHESIS AND ULTIMATE ANALYSIS.—Ultimate organic analysis; typical organic compounds. Laboratory. I; (2).

Assistant Professor DERICK, Dr. THORP, Mr. KAMM

*Prerequisite:* Chemistry 3; registration in Chemistry 14, or equivalent.

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\*Certain inspection trips will be arranged in connection with courses 6 and 7. Students registered in these courses should take into consideration the expense involved, which will approximate \$15.00 for each course.

9b. ORGANIC SYNTHESIS AND QUALITATIVE ORGANIC ANALYSIS.—Continuation of 9a, to accompany Chemistry 14. *II*; (2).

Assistant Professor DERICK, Dr. THORP, Mr. KAMM

*Prerequisite*: Chemistry 9a; registration in Chemistry 14, or equivalent.

9c. ORGANIC SYNTHESIS.—Typical organic compounds. Laboratory. (For students in the medical preparatory and household science courses and others desiring a brief course.) *II*; (2).

Assistant Professor DERICK, Dr. THORP, Mr. KAMM

*Prerequisite*: Chemistry 3; registration in Chemistry 9, or equivalent.

10a. WATER CHEMISTRY.—The history, sources, contamination, and standards of purity of potable waters and waters for industrial purposes. Lectures; practise in analytical methods. *II*; (3).

Professor BARTOW

10b. (A modification of 10a to meet the requirements of students in sanitary engineering, registered in connection with Chemistry 2 and 3.) *II*; (2½).

Professor BARTOW

11. RESEARCH.—Thesis embodying a thoro review of the literature of the subject; account of work done in the laboratory. The subject should be determined upon and reading begun in the junior year. A minimum of five semester hours is required. (Required for seniors.) *I, II*; (5).

Professors NOYES, PARR, BARTOW, BALKE, WASHBURN, Assistant Professors MCFARLAND, SMITH, DERICK, WEBER, Dr. MAC-INNES, Dr. BEAL, Dr. HOPKINS, Dr. THORP, Dr. BATES, Dr. BRODERSON, Dr. SMITH, Dr. HECKER, Mr. MACARTHUR

13a. AGRICULTURAL ANALYSIS.—Gravimetric and volumetric analysis; analysis of fertilizers and milk. Talbot's *Quantitative Chemical Analysis*. (For students in agriculture.) *I or II*; (5).

Assistant Professor SMITH, Dr. BEAL, Dr. BATES

*Prerequisite*: Chemistry 2, 3.

13b. ADVANCED AGRICULTURAL ANALYSIS.—Applied quantitative analysis. The analysis of fungicides, limestone, phosphate rock, fuel, and water; determination of the alkali metals; special methods of agricultural analysis. Treadwell-Hall, *Analytical Chemistry*, Vol. II. (For students who wish to specialize in agricultural chemistry or agricultural experiments.) *II*; (5).

Dr. BEAL

*Prerequisite*: Chemistry 5a or 13a.



14. ORGANIC CHEMISTRY.—Lectures; recitations. Noyes's *Organic Chemistry*. I, II; (3). Professor NOYES

*Prerequisite:* Chemistry 5a; should be accompanied by Chemistry 9a and 9b.

15. PHYSIOLOGICAL CHEMISTRY.—Enzymes; carbohydrates; salivary digestion; gastric digestion; fats; pancreatic-digestion; intestinal digestion; bile; putrefaction products; feces; blood; milk; epithelial and connective tissues; muscular tissue; nervous tissue; urine. Qualitative and quantitative work on gastric juice, blood, urine, and milk; the clinical aspects of these topics treated thoroughly for the prospective students of medicine. Lectures; demonstrations; conferences; practical work; assigned reading. Hammarsten's *Text Book of Physiological Chemistry*; Hawk's *Practical Physiological Chemistry*. (Open to graduates and undergraduates.) I; (5). Mr. MACARTHUR

*Prerequisite:* Two years' work in chemistry.

15a. PROBLEMS OF PHYSIOLOGICAL CHEMISTRY.—Colloids; animal oxidations; osmosis; absorption; selective activity of cells; metabolism; activities of gastro-intestinal tract; enzymes; inorganic nutrition. (Intended especially for medical students.) Lectures; demonstrations; conferences. II; (2). Mr. MACARTHUR

*Prerequisite:* Chemistry 15.

16. CHEMISTRY FOR ENGINEERS.—The proximate analysis of coal; determination of calorific power; technical analysis of furnace gases; examination of boiler waters; lubricating oils. (For mechanical engineers.) II; (3). Professor PARR, Dr. BRODERSON

*Prerequisite:* Chemistry I.

17. TEACHERS' COURSE.—The methods of teaching elementary chemistry. I; (1). Professor BALKE

21. QUALITATIVE ORGANIC ANALYSIS.—Systematic methods for identification of pure organic compounds and mixtures. I; (2).

Assistant Professor DERICK, Mr. KAMM

*Prerequisite:* Chemistry 9a, 9b.

22. ANIMAL CHEMISTRY (ANIMAL NUTRITION).—The chemical composition of animal products and feeding stuffs. Lectures; conferences; assigned reading; laboratory. I or II; (5).

Professor GRINDLEY

*Prerequisite:* Two years' work in chemistry.

27. QUALITATIVE ANALYSIS OF THE RARE ELEMENTS.—The rare elements and their compounds; identification and separation of the

elements; formation, solubilities, and chemical reactions of their salts. Assigned reading; laboratory. *II*; (3). Professor BALKE

*Prerequisite:* Two years' work in chemistry.

31. ELEMENTARY PHYSICAL CHEMISTRY.—Some of the more important principles and methods of physical chemistry and electrochemistry; numerous problems. Lectures; recitations. *II*; (3).

Professor WASHBURN, Dr. SMITH

*Prerequisite:* Chemistry 1, 2, 3; Physics 1 or 2a; Mathematics 8a.

33. ELEMENTARY PHYSICAL CHEMISTRY.—Molecular weight of gases and solutions; chemical equilibrium; the electrical conductivity of solutions and the attendant phenomena within the solution; thermochemistry. (Laboratory to accompany course 31.) *II*; (2).

Dr. MACINNES, Dr. SMITH

*Prerequisite:* Chemistry 5a; Physics 2b or 3.

35. ELECTROCHEMISTRY.—(A continuation of Chemistry 31. See also Chemistry 102b.) Applications to industrial processes. Lectures, recitations, laboratory. Allmand's *Applied Electrochemistry*. *I*; (3 or 5).

Dr. MACINNES

*Prerequisite:* Chemistry 31, 33.

61. INDUSTRIAL CHEMICAL LABORATORY.—The preparation and purification of chemical products from raw materials on a scale sufficient to afford data for determining the economy of the processes employed. Typical forms of chemical machinery such as filter presses, vacuum pan, centrifugal separators, steam jacketed kettles, etc.; reports and estimates upon apparatus and plant for the production of some particular product on a commercial scale. (Should be accompanied by either Chemistry 6 or 109.) *II*; (2).

Assistant Professor MCFARLAND, Dr. BRODERSON

*Prerequisite:* Chemistry 5a and 14.

65. TECHNICAL GAS AND FUEL ANALYSIS.—Examination of gases, gas mixtures, flue gases, and fuels; determination of calorific values; calculation of efficiencies. *I*; (2).

Professor PARR, Dr. BRODERSON

*Prerequisite:* Chemistry 5a.

66. TECHNOLOGY OF GASES.—The manufacture, constituents, and uses of the various forms of gaseous fuel; calorimetry; photometry; the more exact methods of analysis. Lectures; reading; reports; laboratory. *II*; (1).

Professor PARR

*Prerequisite:* Chemistry 65.



68a. ANALYSIS OF GLASSES AND GLAZES.—(For students in ceramics.) Special problems connected with the pottery industry. *I*; (3). Assistant Professor SMITH

*Prerequisite:* Chemistry 5b.

68b. CEMENT CHEMISTRY.—(For students in ceramics.) The analysis of cements; cement materials; pottery bodies. *I*; (3).

Assistant Professor SMITH

*Prerequisite:* Chemistry 5b.

69. METALLURGICAL LABORATORY AND ASSAYING.—The fire assay of gold, silver, lead, and copper ores, mattes, and bullion; special experiments illustrating the underlying metallurgical principles; fluxes, slags, and charge calculations; practise in the use of coal, oil, and gas furnaces, and in the measurement of high temperatures. *Fulton's Manual of Fire Assaying. I*; (2).

Assistant Professor McFARLAND

*Prerequisite:* Chemistry 5a; Geology 5.

70. ADVANCED ASSAYING AND ORE TESTING.—The assay of ores of platinum, tin, copper; bullion assay; free milling, amalgamation, and cyaniding tests. (A continuation of Chemistry 69.) *II*; (2).

Assistant Professor McFARLAND

*Prerequisite:* Chemistry 69.

71. ADVANCED METHODS OF METALLURGICAL ANALYSIS.—Comparison of selected methods for analyses of ores, alloys, and metallurgical products. Laboratory. *I*; (2).

Assistant Professor McFARLAND

*Prerequisite:* Chemistry 5b.

72. PAINTS, OILS, TURPENTINES, VARNISHES, AND PROTECTIVE COVERINGS FOR WOOD AND METALS.—Lectures and laboratory. *I or II*; (2 or 5).

Professor PARR

*Prerequisite:* Chemistry 5b, 14.

73. ASPHALT, TAR, AND OIL RESIDUES.—Their sources, characteristics, composition, and examination; binders, dust preventatives, etc., used in road construction. (For students in highway engineering.) *II*; (2).

Professor PARR

*Prerequisite:* Chemistry 3 or 4.

76. CALORIMETRY OF FUELS.—Methods for determining the heat values of solid, liquid, and gaseous fuels. (An advanced course.) *I, II*; (1-3).

Professor PARR

77. COMPOSITION AND CLASSIFICATION OF COAL.—Classification, changes in composition, weathering, spontaneous combustion, formation of mine gases. Lectures; assigned reading. *II*; (1).

Professor PARR

78. METALLOGRAPHY.—Constitution and microstructure of metals and alloys and the relations between their properties chemical and mechanical treatment, and structure. Lectures; reading and laboratory. *II*; (2).

Assistant Professor MCFARLAND

92 and 93. JOURNAL MEETING.—(For juniors, seniors, and graduates.) *I, II*; (1). All members of the teaching staff in the chemical department.

For Juniors, Assistant Professor DERICK

For Seniors, Assistant Professor MCFARLAND

#### COURSES FOR GRADUATES

Graduate students whose major subject is in some department other than chemistry, before taking graduate work for credit in this department, must have had the equivalent of 15 university credits in chemistry, and the work covered must have included satisfactory work in general chemistry and in qualitative and quantitative analysis. Such students are advised to take Chemistry 31, 33, (or 102, 102a), 5b, 5c, 14, 9a and 9b. Courses of a more special nature will not, as a rule, be accepted for graduate work unless preceded by one of the above courses.

For students in agriculture, Chemistry 5a and 13a will not be accepted for graduate credit.

Graduate students who are candidates for an advanced degree in chemistry must have had the equivalent of 30 university credits in chemistry, and this must include satisfactory courses in general chemistry, qualitative and quantitative analysis, physical chemistry, and organic chemistry. They should have had courses in mathematics, including analytical geometry, and, if possible, the calculus. Before receiving the degree of Doctor of Philosophy such students are expected to complete work equivalent to courses 31, 33 (or 102 and 102a), 14, 9a, 9b, 101, and 111. They are advised to take at least brief courses in gas analysis, iron and steel analysis, water analysis, assaying, and chemical technology.

For students in chemistry, 5a, 13a, 9, and 9c will not be accepted for graduate credit and 9a, 9b, 14, 31 and 33 will be accepted only from students entering the Graduate School with the equivalent of 30 university credits in chemistry.



101. HISTORY OF CHEMISTRY.—Lectures. Pattison Muir's *History of Chemical Theories and Laws*, and assigned reading. *Twice a week; I; ( $\frac{1}{2}$  unit).* Assistant Professor SMITH

[102. ADVANCED PHYSICAL CHEMISTRY.—This course with 102a, covers a period of two years. The subject is treated from the standpoint of Avogadro's *Principle and Thermodynamics*. The primary purpose is to develop power to handle successfully a physico-chemical problem rather than merely to impart a knowledge of the phenomena and the principles involved. Lectures and Seminar. Nernst's *Theoretische Chemie*, 7th edition. *Twice a week; I, II; ( $\frac{3}{4}$  unit).* Not given in 1913-1914. Professor WASHBURN

*Prerequisite:* Chemistry 1, 2; Physics 1, 3; Mathematics 8a or 7 and 9. An elementary knowledge of organic and physical chemistry is desirable.]

102a. ADVANCED PHYSICAL CHEMISTRY.—Chemical equilibrium; the Phase Rule; certain portions of thermochemistry; photochemistry; the thermodynamics of electrochemistry. (A continuation of 102, with which it alternates.) Nernst's *Theoretische Chemie*. *Twice a week; I, II; ( $\frac{3}{4}$  unit).* Professor WASHBURN

*Prerequisite:* The same as course 102.

102b. ADVANCED ELECTROCHEMISTRY.—The modern theories of solution and the principles of thermodynamics in their application to the problems of electrochemistry; electrolytic conductivity and transference; electro-motive force; the energy principles underlying the transformation of chemical and electrical energy; the recent advances in the electrolysis of fused electrolytes and the applications of electricity to gaseous reactions at high temperature. LeBlanc's *Electrochemistry*. *Three times a week; II; (1 unit).*

Dr. MACINNES

(Open to undergraduates having the necessary preparation.)

*Prerequisite:* Chemistry 31, 33; Mathematics 8a or 7 and 9.

102c.—ADVANCED PHYSICAL AND ELECTROCHEMISTRY.—The applications of physico-chemical methods to special problems. Laboratory. *Twice a week; I; ( $\frac{3}{4}$  unit).*

Professor WASHBURN, Dr. MACINNES

*Prerequisite:* Chemistry 31, 33; registration in Chemistry 102b, or completion of Chemistry 102, 102a, or 102b; Mathematics 8a or 7 and 9.

102d. ELECTROCHEMISTRY.—Theoretical and applied electrochem-

istry, with emphasis on the technical side of the subject. (For students of electrical engineering.) *Once a week; I, II; ( $\frac{1}{2}$  unit).*

Dr. MACINNES

102e. SPECIAL TOPICS IN PHYSICAL CHEMISTRY.—Subject for 1913-14: Free Energy and the Nernst Heat Theorem. Pollizer's *Die Berechnung Chemischer Affinitäten nach dem Nernstschen Wärmethorem*. *Once a week; I; ( $\frac{1}{2}$  unit).*

Professor WASHBURN

*Prerequisite:* Chemistry 102 or 102a.

103. ADVANCED INORGANIC CHEMISTRY.—Descriptive inorganic chemistry; the rarer elements; the periodic system. Lectures, with or without laboratory. *Two to five times a week; I, II; ( $\frac{1}{2}$  to  $1\frac{1}{4}$  units).*

Professor BALKE

103a. ADVANCED ANALYTICAL CHEMISTRY.—Special topics. Lectures, with or without laboratory. *One to five times a week; II; ( $\frac{1}{2}$  to  $1\frac{1}{4}$  units).*

Assistant Professor SMITH

*Prerequisite:* Chemistry 5b, 9a, 9b, 14, 31, 33.

103b. SPECIAL TOPICS IN INORGANIC CHEMISTRY.—Subject for 1913-1914: The Investigations and Theories of Werner. Werner, *Neuere Anschauungen auf dem Gebiete der Anorganischen Chemie*; assigned reading from later publications. Lectures and seminar. *Twice a week; I; ( $\frac{3}{4}$  unit).*

Assistant Professor SMITH

*Prerequisite:* Chemistry 9a, 9b, 14.

103c. SPECIAL TOPICS IN INORGANIC CHEMISTRY.—Seminar. Subject for 1913-14: The Determination of Atomic Weights. *Twice a week; II; ( $\frac{3}{4}$  unit).*

Professor BALKE

103d. ADVANCED QUALITATIVE ANALYSIS.—Methods of separating qualitative reagents; reactions of some of the less common elements. Designed especially for those intending to teach qualitative chemistry. Lectures, with or without laboratory. *One to three times a week; I; ( $\frac{1}{2}$  to 1 unit).*

Assistant Professor WEBER

[104. ADVANCED ORGANIC CHEMISTRY.—Seminar. Kekule's linking theory, stereochemistry, steric hindrance, molecular rearrangements, tautomerism, condensation, carbohydrates, ureids. Special attention to the application of modern physical chemistry to the study of organic problems, especially the application of chemical kinetics to tautomerism and to the typical reactions of organic chemistry, and the application of physical properties to the determination of chemical structure. Lectures; discussions. *Twice a week; I, II.* Not given in 1913-14.

Assistant Professor DERICK]



104a. ADVANCED ORGANIC CHEMISTRY.—(Continuation of 104, with which it alternates.) *Twice a week; I, II.*

Assistant Professor DERICK

104b. ADVANCED QUANTITATIVE ORGANIC ANALYSIS.—The quantitative chemistry of the proteins, alkaloids, glucosides, volatile oils, and other constituents of animal and vegetable tissues. Plant analysis. Toxicological analysis. Concludes with a study of the general methods, chemical and physical, of organic analysis. Lectures and seminar. May be accompanied by laboratory work on a selected group of compounds. *Twice a week; I, II; ( $\frac{3}{4}$  unit).* Dr. BEAL

104c. SPECIAL TOPICS IN ORGANIC CHEMISTRY.—Seminar. Subject 1913-14: *The Organic Chemistry of Nitrogen*, Sidgwick. *Once a week; II.*

Assistant Professor DERICK, Dr. THORP

105. ADVANCED PHYSIOLOGICAL CHEMISTRY.—Selected portions of physiological chemistry not covered by Chemistry 15. *Two times a week; II; ( $\frac{3}{4}$  unit).*

Mr. MACARTHUR

105a. ADVANCED PHYSIOLOGICAL CHEMISTRY.—Special investigations. Laboratory. *One to five times a week; II; ( $\frac{1}{2}$  to  $1\frac{1}{4}$  units).*

Mr. MACARTHUR

105b. ADVANCED PHYSIOLOGICAL CHEMISTRY.—Recent contributions of importance in the field of physiological chemistry. *Two times a week; I, II; ( $\frac{3}{4}$  unit).*

Mr. MACARTHUR

106. ANIMAL CHEMISTRY (ANIMAL NUTRITION).—The recent advances in the chemistry of nutrition of the lower animals; the chemistry of the functional products; the flesh, fat, milk, and wool of the more common domesticated animals. Lectures; conferences; assigned reading; laboratory. *Five times a week; I, II; ( $1\frac{1}{4}$  units).*

Professor GRINDLEY

*Prerequisite:* Two years' work in chemistry

107. CALORIMETRY.—Standards and methods. *One to three times a week; I, II; ( $\frac{1}{2}$  to 1 unit).*

Professor PARR

108. ADVANCED METALLOGRAPHY.—Advanced studies in constitution and microstructure of metals and alloys; the relations between their properties, chemical and mechanical treatment, and structure. Assigned reading and laboratory. *Twice a week; II; ( $\frac{3}{4}$  unit).*

Assistant Professor MCFARLAND

*Prerequisite:* Chemistry 7.

109. **ADVANCED INDUSTRIAL CHEMISTRY.**—Seminar. Some of the more important chemical industries; the development and chemical control of processes. *Twice a week; I, II; ( $\frac{3}{4}$  unit).*

Assistant Professor MCFARLAND

*Prerequisite:* Chemistry 6, 9, 14, 21 or equivalent.

110. **WATER SUPPLIES.**—The sources of contamination of water supplies and the purification of water for potable or technical use. *One to five times a week; I, II; ( $\frac{1}{2}$  to  $1\frac{1}{4}$  units).*

Professor BARTOW

111. **RESEARCH.**—A thesis will usually be required of students taking the Master's degree and will always be required of students taking the degree of Doctor of Philosophy. (For a description of undergraduate work leading to a thesis, see Chemistry 11.) Work may be taken in the following subjects:

#### PHYSICAL AND ELECTROCHEMISTRY

Professor WASHBURN, Dr. MACINNES

#### INORGANIC CHEMISTRY

Professor BALKE, Assistant Professors SMITH, WEBER

#### ANALYTICAL CHEMISTRY

Assistant Professor SMITH

#### FOOD CHEMISTRY

Dr. BEAL

#### ORGANIC CHEMISTRY

Professor NOYES, Assistant Professor DERICK, Dr. THORP

#### WATER CHEMISTRY

Professor BARTOW

#### ANIMAL CHEMISTRY (Animal Nutrition)

Professor GRINDLEY

#### PHYSIOLOGICAL CHEMISTRY

Mr. MACARTHUR

#### INDUSTRIAL CHEMISTRY

Professor PARR, Assistant Professor MCFARLAND

Besides the formal courses, outlined above, regular scientific meetings are held by the colloquiums of industrial, physical and inorganic, and physiological and organic chemistry; by the Chemical Club; by Phi Lambda Upsilon, and by the University of Illinois Section of the American Chemical Society.

### CIVIL ENGINEERING

IRA OSBORN BAKER, C.E., D.Eng., *Professor*

ALLEN BOYER MCDANIEL, B.S., *Assistant Professor*

JOHN IRA PARCEL, A.B., B.S., *Assistant Professor*

JAMES ELMO SMITH, C.E., *Assistant Professor*

WILBUR M WILSON, M.M.E., *Assistant Professor*

CARROLL CARSON WILEY, C.E., *Associate*



NEAL BRYANT GARVER, C.E., *Associate*

GEORGE WELLINGTON PICKLES, JR., C.E., *Instructor*

WILLIAM HORACE RAYNER, C.E., *Instructor*

RAYMOND EARL DAVIS, B.S., *Instructor*

BENJAMIN LESTER BOWLING, *Assistant in Cement Laboratory*

GUY G. MILLS, B.S., *Instructor*

1. ROADS AND PAVEMENTS.—Improvement of country highways; means of securing it; construction of earth, gravel, and both water-bound and bituminous macadam roads; methods of construction, cost, durability, and desirability of the various kinds of pavement; grades; cross-sections; assessment of cost; maintenance and cleaning. *Baker's Roads and Pavements. II; (2).* Mr. WILEY

*Prerequisite:* Mathematics 4; General Engineering Drawing 1, 2; Civil Engineering 21, 22, 23.

4. RAILROAD SURVEYING.—The principles of economic location and the construction of railways; railway appliances and maintenance-of-way practise. Field practise: Preliminary and location surveys of a line of railroad of sufficient length to secure familiarity with the methods of actual practise. Each student makes a complete set of notes, maps, profiles, calculations, and estimates. *Field Manual for Railroad Engineers. I; (5).*

Assistant Professor SMITH, Mr. WILEY

*Prerequisite:* Civil Engineering 21, 22, 23.

4a. RAILROAD SURVEYING.—The first eleven weeks of course 4, for students in municipal and sanitary engineering. *I; (3).*

5r. MASONRY CONSTRUCTION.—*Baker's Masonry Construction. I; (4).* Professor BAKER, Assistant Professor MCDANIEL

*Prerequisite:* Theoretical and Applied Mechanics 7, 8, 9, 10; Civil Engineering 20.

5l. CEMENT LABORATORY PRACTISE.—Standard tests for hydraulic cement. *I; (1).* Assistant Professor MCDANIEL

*Prerequisite:* Theoretical and Applied Mechanics 7, 8, 9, 10; Civil Engineering 20; registration in Civil Engineering 5r.

6a. THEORY OF REINFORCED CONCRETE.—The principles of reinforced concrete beams, columns, slabs, etc. *Turneaure and Maurer's Principles of Reinforced Concrete. I; (1).*

Assistant Professor PARCEL

6b. MASONRY AND REINFORCED CONCRETE DESIGN.—The design of

masonry structures; reinforced-concrete beams, columns, slabs; arches, dams, retaining walls. II; (2).

Assistant Professors MCDANIEL, SMITH

*Prerequisite:* Civil Engineering 5.

6c. THEORY AND DESIGN OF REINFORCED CONCRETE.—A brief course in Civil Engineering 6a and 6b for students in architectural engineering, municipal and sanitary engineering, and railway civil engineering. II; (2). Assistant Professor PARCEL, Mr. GARVER

*Prerequisite:* Full senior standing.

10. SURVEYING.—U. S. public land surveys; principles of re-establishing corners. Use of transit in finding distances, areas, and in laying out buildings; use of the level in finding profiles and contours. (For students in architecture, architectural engineering, electrical engineering, and mechanical engineering.) Pence and Ketchum's *Surveying Manual*; II; (2).

Mr. PICKLES, Mr. WILEY, Mr. SCHWARTZ

*Prerequisite:* Mathematics 4; General Engineering Drawing 1, 2; Physics 1, 3.

12. BRIDGE ANALYSIS.—The computation of the stresses in the various forms of bridge trusses, by algebraic and graphic methods, under different conditions of loading. Dufour's *Bridge Engineering, Part One*. I; (2). Assistant Professor PARCEL, Mr. GARVER

*Prerequisite:* Theoretical and Applied Mechanics 7, 8, 9, 10; and for civil engineering students, Civil Engineering 20, and for architectural engineering students, Architecture 5, or 45.

13. BRIDGE DETAILS.—Inspection of a highway bridge; computation of weight and critical investigation of a highway bridge from detailed shop-drawings; detailed estimate of cost; standard details for bridges. I; (2). Assistant Professor WILSON, Mr. GARVER

*Prerequisite:* Registration in Civil Engineering 12.

14. BRIDGE DESIGN.—Individual design of a railroad plate girder and a truss span, with sections proportioned and details worked out, and a complete set of drawings. Dufour's *Bridge Engineering, Part One*. II; (5). Assistant Professor WILSON, Mr. GARVER

*Prerequisite:* Civil Engineering 12, 13.

14a. BRIDGE DESIGN.—Part of Course 14 above, for railway civil engineering students. II; (2). Assistant Professor WILSON

14b. BUILDING DESIGN.—Design of steel-frame office buildings; estimate of cost. (For architectural engineering students.) II; (2). Assistant Professor WILSON

*Prerequisite:* Civil Engineering 12, 13.



15. ADVANCED BRIDGE ANALYSIS.—A brief introduction to the theory of continuous, draw, cantilever, suspension, and metal-arch bridges. Merriman and Jacoby's *Roofs and Bridges, Part Four. II*; (2). Assistant Professor PARCEL

16. ENGINEERING CONTRACTS AND SPECIFICATIONS.—The law of contract; examples of general and technical clauses used in engineering specifications. Johnson's *Engineering Contracts and Specifications. II*; (2). Assistant Professor MCDANIEL

*Prerequisite:* Civil Engineering 5, 12, 13; Municipal and Sanitary Engineering 2, 3.

20. GRAPHIC STATICS.—Elements of graphic statics; determination of stresses in roof and bridge trusses and in the braced bent. Malcolm's *Elements of Graphic Statics. II*; (2).

Assistant Professor SMITH, Mr. GARVER

*Prerequisite:* Mathematics 2, 4, 6; Theoretical and Applied Mechanics 7, 8, 9, 10; General Engineering Drawing 1, 2.

21. SURVEYING.—The theory, use, and adjustment of the compass, level, and transit. Field work; the determination of distances by pacing and with the chain and tape; the determination of areas with the compass, transit, and plane table; profile leveling. Plotting from field notes. The U. S. land survey methods, and court decisions relating to the re-establishment of corners, boundaries, partition of land, interpretation of deeds, and in city and farm surveying. Breed and Hosmer's *Principles and Practise of Surveying, Vol. I*; Pence and Ketchum's *Surveying Manual. I*; (5).

Mr. PICKLES, Mr. RAYNER, Mr. DAVIS

*Prerequisite:* General Engineering Drawing 1, 2; Mathematics 4.

22. TOPOGRAPHIC SURVEYING.—The theory and use of the stadia, plane table, sextant, and other instruments used in making a topographic survey; methods; topographic drawing; a complete topographic survey based on a system of triangulation including the calculations, and platting and completing the map; precise measurement of bases and angles. Astronomical determination of latitude, longitude, and the meridian. Breed and Hasmer's *Principles and Practise of Surveying, Vol. I*; Pence and Ketchum's *Surveying Manual. II*; (4). Mr. PICKELS, Mr. RAYNER, Mr. DAVIS

*Prerequisite:* Civil Engineering 21; General Engineering Drawing 1, 2; Mathematics 4.

23. RAILROAD CURVES.—The geometry of the circle as applied to railroad curves; the methods of locating curves in the field. Pickels and Wiley's *Text-book of Railroad Surveying*. II; (1).

Mr. PICKELS, Mr. RAYNER, Mr. DAVIS

*Prerequisite:* Civil Engineering 21, 22; General Engineering Drawing 1, 2; Mathematics 4. Taken with C. E. 22.

24. METAL STRUCTURES.—The design and calculation of stresses in mill and steel-skeleton buildings. I; (1).

Assistant Professor WILSON

*Prerequisite:* Civil Engineering 12, 13, 20.

25. SEMINAR.—Reading and discussion of papers. Each student presents one major and two minor papers upon assigned topics, and participates in the discussion of other papers. II; (1).

Professor BAKER

*Prerequisite:* Full senior standing in Civil Engineering.

30. THESIS.—First semester: preliminary work, with weekly conferences. Second semester: specified hours for work and conferences. I; (1); II; (2). Instructor assigned by Professor BAKER

*Prerequisite:* Full senior standing in Civil Engineering.

#### COURSES FOR GRADUATES

Entrance upon graduate work in civil engineering presupposes the full undergraduate course in that subject.

106. REINFORCED-CONCRETE DESIGN.—The materials, design, forms, and erection of reinforced-concrete structures. *Three times a week; I or II.*

Assistant Professor McDANIEL

107. BRIDGE ENGINEERING.—Theorems of Castigliano; Maxwell's reciprocal theorem; virtual velocities; deflections; camber; redundant members; special graphic methods; secondary systems; impact; general flexure; specifications; design of tension and compression members; details of construction; manufacturing methods and costs; bridge erection. *Three times a week; I, II.*

Assistant Professor PARCEL

124. STEEL BUILDING CONSTRUCTION.—The design of the steel skeleton of buildings for various purposes. Conferences, problems, and inspection of construction work in progress. *Three times a week; I or II.*

Assistant Professor WILSON



## THE CLASSICS

HERBERT JEWETT BARTON, A.M., *Professor, Chairman*

CHARLES MELVILLE MOSS, Ph.D., *Professor*

WILLIAM ABBOTT OLDFATHER, Ph.D., *Associate Professor*

ARTHUR STANLEY PEASE, Ph.D., *Associate Professor*

HOWARD VERNON CANTER, Ph.D., *Assistant Professor*

*Majors*

A major in the classics consists of 30 hours in Greek and Latin, of which at least 12 shall be in the secondary language, and the remaining hours in the primary language. Only those courses may count toward the major in the classics which count toward a major in Latin and Greek respectively.

A major in Greek consists of 24 hours, not including Greek 1, 17, 18, 19.

A major in Latin consists of 24 hours, not including Latin 12. Latin 1 may be counted for half credit only.

*Honors*

For honors in Greek the major shall be the ordinary one of 24 hours, as defined above; the minors shall be Latin and one other foreign language, or history, or philosophy, or English literature. Neither minor shall consist of less than 9 hours, and the two together must aggregate not less than 24 hours. No course may be counted toward these minors which is not counted toward a major by the department concerned.

For honors in Latin the major shall consist of 24 hours and shall include Latin 14 and 16; the minors shall be at least one other foreign language, preferably Greek, and one of the following: English literature, a modern language, history, or philosophy, with the same conditions as in the case of Greek.

## GREEK

## COURSES FOR UNDERGRADUATES

The courses in translation naturally follow one another in this sequence: 1, 3, 4, 5 (7), 6 (8). Courses 1, 3, and 4 are intended for students who cannot present Greek for entrance to the University, but who desire to commence the study of the language. Course 2 may be taken after Course 1 and Course 14 after Courses 5 or 7.

Nos. 16, 17, 18, and 19 are open to sophomores, juniors, and seniors; No. 20 to those who have completed one year in History or in Classics.

1. GRAMMAR AND READER.—Attic forms; reading of simple prose. Second semester, Xenophon's *Anabasis*, Book I; *I, II*; (4).

Associate Professor OLDFATHER

2. NEW TESTAMENT GREEK.—Reading of selections; lectures on Canon and Text. *I, II*; (2).

Professor MOSS

*Prerequisite*: Greek 1.

3. SECOND YEAR GREEK.—Xenophon, *Anabasis*, Books II-IV. Grammatical drill. *I*; (3).

Assistant Professor CANTER

*Prerequisite*: Greek 1.

4. SECOND YEAR GREEK.—Homer. Six books of the *Iliad*. *II*; (3).

Assistant Professor CANTER

*Prerequisite*: Greek 3.

[5. HERODOTUS.—Selections, including portions of Books VI-VIII. Greek lyric poets. *II*; (3). Not given, 1913-14.

Professor MOSS

*Prerequisite*: Greek 4]

[6. THUCYDIDES.—Books VI-VII. The Sicilian Expedition. *I*; (3). Not given in 1913-14.

Associate Professor PEASE

*Prerequisite*: Greek 4.]

7. GREEK DRAMA.—Three plays from the great dramatists; history of the drama and theatrical antiquities. *II*; (3).

Professor MOSS

*Prerequisite*: Greek 4.

8. PLATO.—Selected dialogues, including the *Apology* and the *Phaedo*. *I*; (3).

Associate Professor PEASE

*Prerequisite*: Greek 4.

14. ADVANCED GREEK PROSE COMPOSITION.—*II*; (1).

Professor MOSS

*Prerequisite*: Greek 5 and 6, or 7 and 8.

#### GREEK LIFE AND LITERATURE IN ENGLISH

(Courses 16-20 presuppose no knowledge of Greek and are open to all students except freshmen.)

16. THE PRIVATE AND PUBLIC LIFE OF THE GREEKS.—Lectures illustrated by photographs and slides; prescribed readings. *I*; (1).

Professor MOSS

17. GREEK POETRY IN TRANSLATIONS.—*I*; (2). Professor MOSS



18. GREEK PROSE IN TRANSLATIONS.—*I*; (2). Professor MOSS  
 19. GREEK DRAMA IN TRANSLATIONS.—*II*; (2). Professor MOSS  
 20. HISTORY OF GREECE.—*I*; (3). (This course is described by the department of history as History 5.)

Associate Professor OLDFATHER

*Prerequisite*: One course in history or the classics.

#### COURSES FOR GRADUATES

[103. PRINCIPLES OF COMPARATIVE GRAMMAR.—*Three times a week; I. (1 unit)*. (The same as Latin 101). Not given in 1913-14  
 Assistant Professor CANTER]

[104. HOMER AND THE HOMERIC QUESTION.—Lectures and reading in alternate hours. The whole of the *Iliad* and a large portion of the *Odyssey* will be read; of this about twelve books in class. Introduction to the methods of historical and literary criticism. *Twice a week; I, II. (1 unit)*. Not given in 1913-14.

Associate Professor OLDFATHER]

105. PLATO AND ARISTOTLE.—Selections from the political and ethical writings. The *Republic* of Plato and the *Ethics* and *Politics* of Aristotle. *Twice a week. I, II; (1 unit)*.

Associate Professor OLDFATHER

106. GREEK DRAMA.—One play of each of the great dramatists; the biography of the author, his relation to the development of dramatic art, and the history of Greek literature. Certain plays assigned for private reading. Reports upon prescribed topics. *Twice a week; I, II; (1 unit)*. Professor MOSS

[107. GREEK ORATORY.—One or more speeches of each of several orators; the style, place in the canon, and relation to their times of one or two authors; problems in the Athenian constitution and legal practise assigned for individual study and reports. *Twice a week. I, II; (1 unit)*. Not given in 1913-14. Professor MOSS]

#### LATIN

##### FIRST-YEAR COURSES

1. OVID AND VIRGIL.—Selections from the *Amores*, *Heroides*, and *Metamorphoses* and the *Aeneid*. *I, II; (4)*.

Associate Professor PEASE, Assistant Professor CANTER

*Prerequisite*: Three entrance units in Latin.

2. LIVY, PLAUTUS, AND TERENCE.—Selections from Livy; the *Rudens* of Plautus; the *Phormio* of Terence. *I, II; (4)*.

Professor BARTON

*Prerequisite*: Four entrance units in Latin.

SECOND-YEAR COURSES

3. SALLUST AND CICERO.—Selections from the *Jugurthine War*; *De Senectute*. *I*; (3). Assistant Professor CANTER  
*Prerequisite*: Latin 2.
4. CATULLUS AND HORACE.—Selections from the lyrics of Catullus and the *Odes* of Horace. *II*; (3). Professor BARTON  
*Prerequisite*: Latin 2.
5. LATIN COMPOSITION.—Grammatical drill; practise in the simpler forms of expression. *I, II*; (1). Assistant Professor CANTER  
*Prerequisite*: Latin 1 or its equivalent.

ROMAN LIFE AND LITERATURE IN ENGLISH

(Courses 12 and 13 presuppose no knowledge of Latin; open to all students except freshmen.)

12. VIRGIL AND HORACE IN ENGLISH TRANSLATIONS.—*I*; (2).  
 Professor BARTON
13. ROMAN LIFE.—The family; amusements; education; morals; society; monuments. Lectures, illustrated by photographs and slides. *II*; (1).  
 Professor BARTON
19. ROMAN HISTORY.—*II*; (3). (This course is described by the department of history as History 6.)  
 Assistant Professor CANTER  
*Prerequisite*: One course in history or the classics.

COURSES FOR ADVANCED UNDERGRADUATES

- [7. HORACE AND JUVENAL.—Selections from the *Satires* and *Epistles* of Horace; selected *Satires* of Juvenal. *I*; (3). Not given in 1913-14. Associate Professor PEASE  
*Prerequisite*: 12 hours' credit in Latin.]
8. TACITUS.—The *Annals*, books I-VI. *I*; (3).  
 Associate Professor PEASE  
*Prerequisite*: 12 hours' credit in Latin.
9. TEACHERS' COURSE.—The purpose and methods of preparatory Latin instruction; the teacher's preparation. *II*; (2).  
 Professor BARTON  
*Prerequisite*: 18 hours' credit in Latin. A portion of this requirement may be waived for those who have taught Latin.



10. LATIN COMPOSITION.—The leading principles; imitation of assigned models. *I*; (2). Professor BARTON

*Prerequisite*: 12 hours' credit in Latin, including Latin 5 or its equivalent.

22. LATE LATIN.—Rapid reading of selections from the Latin writers from Minucius Felix to Cassiodorus. *II*; (2).

Associate Professor PEASE

*Prerequisite*: This course is open to seniors and graduates who have had two years of college Latin or who otherwise satisfy the instructor of their ability to do the work required.

#### COURSES FOR ADVANCED UNDERGRADUATES AND GRADUATES

[14. SENECA.—Selections from his letters and tragedies. *II*; (3). Not given in 1913-14. Professor BARTON

*Prerequisite*: 18 hours' credit in Latin.]

16. MARTIAL AND SUETONIUS.—Selections; lectures on literary history. *II*; (3). Associate Professor OLDFATHER

*Prerequisite*: 18 hours' in Latin.

#### COURSES FOR GRADUATES

Students desiring to take graduate work in Latin should have had at least three years of college Latin in addition to the Latin presented to meet entrance requirements.

[101. PRINCIPLES OF COMPARATIVE GRAMMAR.—(The same as Greek 103). *Three times a week*; *I*. Not given in 1913-14.

Assistant Professor CANTER]

102. ROMAN ORATORY.—*Twice a week*; *II*; ( $\frac{1}{2}$  unit).

Assistant Professor CANTER

103. CICERO.—*De Natura Deorum* and *De Divinatione*. *Twice a week*; *I*. ( $\frac{1}{2}$  unit).

Associate Professor PEASE

104. PALAEOGRAPHY.—*Twice a week*; *I*; ( $\frac{1}{2}$  unit).

Associate Professor PEASE

[105. LATIN POETRY.—*Twice a week*; *II*; ( $\frac{1}{2}$  unit). Not given in 1913-14.

Associate Professor PEASE]

106. LATIN COMEDY.—*Twice a week*; *I*; ( $\frac{1}{2}$  unit).

Associate Professor OLDFATHER

107. EPIGRAPHY.—*Twice a week*; *II*; ( $\frac{1}{2}$  unit).

Associate Professor PEASE

108. TACITUS.—*The Histories*. *Twice a week*; *I*; ( $\frac{1}{2}$  unit).

Professor BARTON

109. VIRGIL.—*Twice a week; II; ( $\frac{1}{2}$  unit).*

Associate Professor PEASE

110. SEMINAR.—*Once a week; I, II; ( $\frac{1}{4}$  unit).*

Associate Professor OLDFATHER, Associate Professor PEASE, and other members of the department.

## COMMERCIAL LAW

(See ECONOMICS and ACCOUNTANCY.)

## DAIRY HUSBANDRY

HARRY ALEXIS HARDING, Ph.D., *Professor, Dairy Bacteriology*

WILBUR JOHN FRASER, M.S., *Professor, Dairy Husbandry*

MARTIN JOHN PRUCHA, Ph.D., *Assistant Professor, Dairy Bacteriology*

\*NELSON WILLIAM HEPBURN, M.S., *Assistant Professor, Dairy Manufactures*

LEROY LANG, M.S., *Associate, Dairy Manufactures*

ROYDEN EARL BRAND, M.S., *Associate, Dairy Husbandry*

HORATIO NEWTON PARKER, *Instructor, Milk Distribution*

WILLIAM TRUMAN CRANDALL, M.S., *Associate, Milk Production*

HARRISON AUGUST RUEHE, B.S., *Instructor, Dairy Manufactures*

RAY STILLMAN HULCE, M.S., *Instructor, Milk Production*

OLIVER ARNOLD KELLER, B.S., *Assistant, Dairy Manufactures*

WILLIAM WODIN YAPP, B.S., *Assistant, Dairy Husbandry*

HARRY MONTGOMERY WEETER, A.B., *Assistant, Dairy Husbandry*

### COURSES FOR UNDERGRADUATES

1. MILK TESTING.—Official testing; inspectors' methods; tests for purity and adulteration; lactometer; acid tests; tests for preservatives; butter analysis; moisture, salt and fat tests. Lectures; assigned readings; laboratory practise. (Alternates with Dairy Husbandry 16 if desired.) *I; (3).* Mr. LANG, Mr. RUEHE

7. BUTTER MAKING AND FACTORY MANAGEMENT.—Cream receiving and ripening; pasteurization; use of commercial starters; churning, salting, working, and marketing of butter; butter scoring; separators; special problems for the manufacture of butter; private and co-operative management of creameries; centralizers' systems; creamery accounting and business methods; refrigerating; ice cream making; location and planning of creamery buildings. Lectures; assigned readings; laboratory practise. *II; (5).*

Mr. LANG, Mr. RUEHE

*Prerequisite:* Dairy Husbandry 1.

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\*On leave.



19. FARM DAIRYING.—Systems of creaming milk; the care and use of the hand separator; the various makes of machines; farm butter-making; ripening cream; churning, working, and marketing butter on the farm. *I*; (2). Mr. LANG

*Prerequisite:* Dairy Husbandry 1.

22. CHEESE MAKING.—Ripening and setting milk; cutting, cooking, and dipping curd; cheddaring, milling, matting, and salting curds; pressing and curing cheese; the different varieties of cheese; practise in making more common varieties. *I*; (3). Mr. RUEHE

*Prerequisite:* Dairy Husbandry 1.

8. CITY MILK SUPPLY.—Producing and marketing clean milk for public consumption; sanitation of the dairy barn and milk house; scoring and inspection of dairies; standardization, bottling, transportation, and delivery of milk; communicable disease; value of milk as a food; milk beverages; certified milk; milk commissions; legal regulations of cities and states. (Alternates with Dairy Husbandry 11 if desired.) *II*; (3). Mr. PARKER

*Prerequisite:* Dairy Husbandry 1.

11. DAIRY BACTERIOLOGY.—The relation of bacteria to the dairy industry; changes commonly effected in milk by bacteria; market milk; inspected milk; certified milk; pasteurized milk; bacteria characteristic of different groups; bacteria producing milk of unusual character; preserved milks; butter; oleomargarine; cheese. (Alternates with Dairy Husbandry 8 if desired.) *II*; (3).

Professor HARDING, Mr. PARKER

*Prerequisite:* Botany 5 or 12.

3. ELEMENTS OF DAIRY HUSBANDRY.—The dairy herd, dairy sanitation, milk testing, milk products. Required of all freshmen in the general course in Agriculture. Lectures; demonstrations. *I* or *II*; (1). Mr. HULCE and various members of the department

2. DAIRY CATTLE.—Dairy type and its relation to milk and butter fat production; origin and history of breeds, their characteristics, type and adaptability to the various markets and climatic conditions; prominent families and individuals in principal breeds; herd improvement; selection of animals on performance, breeding, and physical conformation; grading up by use of superior sires. Lectures; recitations; judging. *I*; (4). Mr. CRANDALL

16. FEEDING DAIRY CATTLE.—Compounding rations for dairy cows; preparation of feeds; study of station feeding tests; effect of feeds on milk products; calf raising, feeding and general care;

barn arrangement, with reference to storage and feeding; types of mangers; silos, location and types. Opportunity will be given to study the feeding of the University dairy herds as well as the types of silos in use. (Alternates with Dairy Husbandry 1 if desired.)  
I; (3). Mr. HULCE

17. ADVANCED STUDY OF DAIRY BREEDS.—The origin and history of dairy breeds; history of prominent families and noted individuals, their characteristics and producing abilities; pedigree work with special emphasis upon performance records; advanced registry systems; problems peculiar to the breeder of pure-bred dairy cattle. The student may specialize in the particular breed in which he is interested. Lectures; assigned readings; seminar work. II; (2).

*Prerequisite:* Dairy Husbandry 2 and 16. Mr. CRANDALL

21. SYSTEMS OF DAIRY FARMING.—Relation of the cow and the herd to profits; how to establish and perpetuate a dairy herd of the highest efficiency; economy of crops and rations on a dairy farm; systems of cropping; the organization of a dairy farm; location and arrangement of buildings and lots; farm accounts, records, and inventories; markets; care and disposal of milk at the greatest profit. II; (5). Professor FRASER, Mr. BRAND

*Prerequisite:* Dairy Husbandry 2 and 16.

#### COURSES FOR GRADUATES

101. ECONOMIC MILK PRODUCTION.—Differences in the efficiency of dairy cows, cause and effect of the same, and the relation this bears to successful dairy farming. *Twice a week; I, II; (1 unit).*

Professor FRASER

102. RESEARCH.—The investigations in progress in the dairy herds of the state. *I, II; (1 unit).*

Professor FRASER

103. RESEARCH.—Dairy feeding problems. *I, II; (1 unit).*

Professor FRASER

#### DRAWING, GENERAL ENGINEERING

HARVEY WILLARD MILLER, M.E., *Assistant Professor*

ROBERT KENT STEWARD, C.E., *Associate*

FRANCIS MARION PORTER, M.S., *Associate*

HAROLD ORDWAY RUGG, C.E., *Instructor*

HARVEY HERBERT JORDAN, B.S., *Instructor*

RUFUS CRANE, A.B., B.S., *Instructor*

\*ROBIN BEACH, B.S., *Instructor*

WALTER STEPHEN NELSON, *Half-time Assistant*

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\*Second Semester.



1. ELEMENTS OF DRAFTING.—Lettering; isometric oblique and perspective drawing; orthographic projection; machine sketching; working drawings. Lettering: mechanical styles and the making of name plates and titles for mechanical drawings. Mechanical drawing: 12 plates from copy, with tracings of each, and 6 plates from models, with tracings of each. Dimensioned sketches from parts of standard machines, followed by complete working drawings. Tracings duplicated in blue-print form. Time sketches of the equipment in the shops and laboratories; Miller & Steward's *Plate Specifications. I*; (4).

Assistant Professor MILLER and department staff.

2. DESCRIPTIVE GEOMETRY.—The point, line, and plane; the properties of surfaces; intersections and developments. (For architects, perspective instead of intersections and developments.) Practical problems. Recitations precede the work in the drawing room at each period. Three drawing room plates, 2 hours each, 5 problems per plate, and 2 home plates, 5 problems each, constitute each week's work. Miller's *Descriptive Geometry*, Porter's *Plates. II*; (4).

Assistant Professor MILLER and department staff

*Prerequisite*: Solid geometry, college algebra, plane trigonometry.

21. ADVANCED DESCRIPTIVE GEOMETRY.—Review of course 2; the cylinder, cone, convolute and warped surface; intersections of these surfaces in pairs, and by planes; planes tangent; developable surfaces and those approximately developable; doubly curved surfaces and complex surfaces of revolution; practical applications and methods. *II*; (2).

Mr. PORTER

*Prerequisite*: G. E. D. I, 2.

## ECONOMICS

(Including ACCOUNTANCY)

(See also HISTORY, POLITICAL SCIENCE, and SOCIOLOGY.)

DAVID KINLEY, Ph.D., LL.D., *Professor*

MAURICE HENRY ROBINSON, Ph.D., *Professor*

ERNEST RITSON DEWSNUP, A.M., *Professor*

ERNEST LUDLOW BOGART, Ph.D., *Professor*

GEORGE ENFIELD FRAZER, A.B., LL.B., *Professor*

WILLIAM ARTHUR CHASE, LL.B., C.P.A., *Lecturer, in charge of work in Accountancy*

NATHAN AUSTIN WESTON, Ph.D., *Assistant Professor*

SIMON LITMAN, Dr.Jur.Pub.etRer.Cam., *Assistant Professor*

JOHN GIFFIN THOMPSON, Ph.D., *Instructor*

CHARLES MANFRED THOMPSON, Ph.D., *Instructor*

HIRAM THOMPSON SCOVILL, A.B., *Instructor*

CHARLES LESLIE STEWART, A.M., *Instructor*

ROGER FRANK LITTLE, A.B., LL.B., *Lecturer, Business Law*

ALVA LEROY PRICKETT, A.B., *Assistant*

The department of economics includes general economics, economic history, finance, commerce, commercial law, industry, railway administration, and accountancy. The courses in commercial law and accountancy may not be counted towards a major in economics.

Courses 7, 22, and 26, English Economic History, the Economic History of the United States, and Economic Resources, are open to freshmen without previous requirement, but not more than six hours of these courses may be counted towards a major in economics. Courses numbered 101 and above are open to graduate students only.

Courses 4a, 4b, 5, 8, 10, 11, 12, 13, 17, 21, 29, 30, 41, 42, 43, and 45 are open to graduates and advanced undergraduates.

### *Honors*

For honors in economics, at least thirteen of the twenty-four hours required in the major subject shall be in courses requiring Economics I as a prerequisite.

One of the minors shall be selected from the following subjects: history, political science, sociology, and accountancy. The other minor shall be selected with the approval of the department.

### COURSES FOR UNDERGRADUATES

#### 1. PRINCIPLES OF ECONOMICS.—I; (5).

Assistant Professor WESTON and others

*Prerequisite:* At least thirty hours of university work.

#### 2. PRINCIPLES OF ECONOMICS.—Section A open to junior and senior engineering students only; section C open to junior and senior agricultural students only. I, II; (2).

Professor ROBINSON, Professor DEWSNUP, Professor BOGART,  
Dr. J. G. THOMPSON

#### 3. MONEY AND BANKING.—The history and theory of money, credit, and banking. II; (3).

Assistant Professor WESTON

*Prerequisite:* Economics I.



[4a. FINANCIAL HISTORY OF THE UNITED STATES TO THE CIVIL WAR.—Colonial and federal finance, including currency, banking, tariff and fiscal questions. Not given in 1913-14. *II*; (2).

Assistant Professor WESTON

*Prerequisite:* Economics 3 and senior standing.]

4b. FINANCIAL HISTORY OF THE UNITED STATES SINCE 1860.—The finances of the Civil War and Reconstruction period; recent development of both public and private finance with special reference to business conditions. *II*; (2).

Assistant Professor WESTON

*Prerequisite:* Economics 3 and senior standing.

5. PUBLIC FINANCE.—Public expenditures; financial administration; taxation; public debts. *I*; (3). Professor BOGART

*Prerequisite:* Economics 1 and 3. Students who have had 6 hours in history and Political Science 1 and who present a statement from the department of political science showing that they are taking political science as a major, may be admitted without Economics 3.

6. BUSINESS ORGANIZATION.—Business enterprises and their organization: Characteristics and relative advantages of individual proprietorship, partnership, and corporation. Organization for operating purposes and the effect of the organization on business and technical efficiency. The organization and work of commercial and industrial associations. *II*; (2). Professor ROBINSON

*Prerequisite:* Economics 1, and 3 either preceding or concurrent. Open to students of business administration only.

7. ENGLISH ECONOMIC HISTORY.—The industrial development of England; the manorial system; the guilds; the commercial policy and expansion of the seventeenth and eighteenth centuries; the industrial and manufacturing growth of the nineteenth century. Open to freshmen and sophomores only. *I*; (3).

Professor BOGART

8. THE MONEY MARKET.—Dealings in money and credit; the functions of money broker and banker; the concentration of financial dealings at such centers as New York and London; international payments and the determination of rates of foreign exchange; the seasonal demands for money; causes of fluctuation in rates of discount; monetary panics and crises; investments; the

financial aspects of dealings on the stock and produce exchanges. *II*; (2). Assistant Professor WESTON

*Prerequisite*: Economics 9. Open to students of business administration only.

9. PRACTICAL BANKING.—Banking practise in the United States. *I*; (2). Assistant Professor WESTON

*Prerequisite*: Economics 3; senior standing. Open to students of business administration only.

10. CORPORATION MANAGEMENT AND FINANCE.—The growth of corporations; their causes and forms; the promotion, financiering, incorporation and capitalization of corporate consolidations; their organization and securities; position and relation of stockholders and directors, analysis of reports, stock speculation, relations of industrial corporations to international competition, receiverships and reorganizations; social and political effects. *I*; (3).

Professor ROBINSON

*Prerequisite*: Economics I and 3.

11. INDUSTRIAL CONSOLIDATION.—The development of industrial consolidation; the growth of monopoly, monopoly prices and methods, the ability of trusts to effect prices, wages, interest and profits; and the proposed plans for controlling trusts. *II*; (3).

Professor ROBINSON

*Prerequisite*: Economics 10.

12. LABOR PROBLEMS.—The condition and claims of labor and the principles underlying them. *I*; (3). Professor KINLEY

*Prerequisite*: Senior or graduate standing and Economics I and 3. Students who have had 6 hours in history and Sociology I and who present a statement from the department of sociology showing that they are taking sociology as a major, may be admitted without Economics 3.

13. ECONOMIC DEVELOPMENT OF EUROPE SINCE THE INDUSTRIAL REVOLUTION.—The economic history of France, Germany and England since the period of the industrial revolution. *II*; (3).

Professor BOGART

*Prerequisite*: At least sixty hours of university work, including Economics I and 3. Students who present a statement from the department of history showing that they are taking history as a major, may be admitted without Economics 3.

14. AGRICULTURAL COOPERATION.—The organization, financing, and management of cooperative associations for the promotion of



various branches of farming. Open to junior and senior students of agriculture only. *II*; (2). Mr. STEWART

*Prerequisite:* Economics 2.

15. RURAL CREDIT.—The credit and banking needs of farmers and rural communities generally; the ways and means of supplying them. Open to junior and senior students of agriculture only. *I*; (2). Mr. STEWART

*Prerequisite:* Economics 2.

16. ECONOMIC PROBLEMS.—Section A: Railway problems; taxation of corporations; the labor question. Section C: Special topics relating to agriculture. A open to students of engineering only; C open to students of agriculture only. *II*; Sec. A (2); Sec. C (3).

Professor ROBINSON, Professor BOGART, Dr. J. G. THOMPSON

*Prerequisite:* ECONOMICS 2.

17. ECONOMIC HISTORY OF AGRICULTURE.—General characteristics of agriculture and its development as an industry in various countries at various times. Land tenure and landed property. Large, medium, and small farms or estates. Economic conditions and results of extensive and intensive culture. Agricultural credit and markets. Agricultural labor. State of the agricultural class. Organization in agriculture. Relation of agriculture to other industries. Relation of the state to agriculture. General aspects of farm organization and management. *II*; (2).

Dr. J. G. THOMPSON

*Prerequisite:* Economics 1 and 3 and senior standing. Seniors in the College of Agriculture who have had Economics 1 or 2 may be admitted to the course by special permission of the instructor.

18. SENIOR SEMINAR.—Investigation in economics, commerce, and industry; the preparation of theses. Business students and others making economics a major should take this course. *I, II*; (4-8 for the year). Professor ROBINSON

[21. SOCIALISM AND ECONOMIC REFORM.—The important socialistic theories. Not given in 1913-14. *II*; (3). Professor KINLEY

*Prerequisite:* Economics 1 and 12.]

22. THE ECONOMIC HISTORY OF THE UNITED STATES.—The explorations and settlements that led to the colonization of this continent; the growth of industry, agriculture, commerce, transportation, and labor from the simple, isolated agricultural communities of the colonies to the complex industrial and commercial society of today. Open to freshmen and sophomores only. *II*; (3).

Professor BOGART

23. **ELEMENTARY LAW.**—The law of contracts, leases, landed property, etc. Open to junior and senior students of agriculture only. *II*; (3). Mr. LITTLE

*Prerequisite:* Economics 2.

25. **COMMERCIAL LAW.**—Contracts; negotiable instruments; agency; partnerships; business corporations; sales of personal property; bailments and carriers; guaranty and suretyship; insurance. The course may not be counted towards a major in economics. *I*, *II*; (2). Mr. CHASE

*Prerequisite:* At least sixty hours of university credit including Economics I and Accountancy I.

*For* STATISTICS, see Mathematics 23, 31, and 129.

26. **ECONOMIC RESOURCES.**—Environmental influences affecting commercial and industrial development; the more important products and industries of different countries; the extent and distribution of the resources and the industrial and commercial activities of the United States. Open to freshmen and sophomores only. *I*; (3). Assistant Professor LITMAN

27. **MODERN INDUSTRIES.**—The raw materials of commerce; their geographical distribution and their economic significance; the leading industries engaged in the utilization of these materials; the sources of power; the investment of capital; the employment of men and of machinery; the progressive stages of production; the distribution of finished commodities. Open to freshmen and sophomores only. *II*; (3). Assistant Professor LITMAN

*Prerequisite:* Economics 26, or an approved high school course in commercial geography.

[28. **MECHANISM AND TECHNIQUE OF DOMESTIC COMMERCE.**—Buying and selling in internal trade; forms of wholesale and retail trade organizations; markets, fairs, auctions, stock and produce exchanges; department, mail-order, and cooperative stores; commercial travelers; commercial competition; theory and practise of modern advertising; mercantile credit. *I*; (3). Not given in 1913-14.

Assistant Professor LITMAN

*Prerequisite:* Economics 1, 3 and 26 or 27.]

29. **FOREIGN COMMERCE AND COMMERCIAL POLITICS.**—Problems arising in connection with international trade relations, and various attempts to solve them; changes in theories and in policies; economic systems (mercantile, free-trade, protective); classes of cus-



toms tariffs; commercial treaties; promotion of shipping; institutions for furthering export trade (commercial museums, consular service.) *I*; (3). Assistant Professor LITMAN

*Prerequisite:* Economics 1, 3 and 26 or 27.

30. **TARIFF AND CUSTOMS REGULATIONS OF THE UNITED STATES.**—The history of tariff legislation in the United States; the present tariff system; the organization and work of the custom house; entry of goods. *II*; (3). Assistant Professor LITMAN

*Prerequisite:* Economics 29.

[31. **ORGANIZATION OF FOREIGN COMMERCE.**—Exporting and importing; means of communication and of transportation; the shipping business; duties of consuls. *II*; (3). Not given in 1913-14. Assistant Professor LITMAN

*Prerequisite:* Economics 28.]

[33. **ECONOMICS OF INSURANCE.**—The historical development of insurance; its economic aspects. *I*; (2). Not given in 1913-14.

*Prerequisite:* Economics 1 and 3.]

34. **PROPERTY INSURANCE.**—Fire, marine, title, and credit insurance and corporate suretyship, etc. Their technical characteristics and economic effects. *I*; (2). Professor ROBINSON

*Prerequisite:* Economics 1 and 3.

41. **RAILWAY TRANSPORTATION.**—Railway transportation in the United States, with passing reference to conditions abroad. Introduction; growth and present extent of the railway system; the relation of waterway and interurban competition to railway development; the railway corporation and its financial aspects; the management of a railway; railway combinations; the theory and practise of rate-making; relations with state and federal governments; the relation of European railways to the state. *I*; (3).

Professor DEWSNUP

*Prerequisite:* Economics 1 and 3; for engineers, Economics 2.

42. **RAILWAY RATES; THEIR CONSTRUCTION AND REGULATION.**—Rate structure of the United States; the policy of the Interstate Commerce Commission as shown by its decisions; the relation of such policy to the various theories of rate making. *II*; (3).

Professor DEWSNUP

*Prerequisite:* Economics 41.

43. **THE THEORY AND PRACTISE OF RAILWAY TRAFFIC ADMINISTRATION.**—The organization and methods of traffic management;

problems connected therewith. Registration in the second semester is permitted only to those who obtain credit in the first semester. *I, II; (2).* Professor DEWSNUP

*Prerequisite:* Economics 1 and 3. Open to students of Business Administration only.

[45. RAILWAY OPERATION AND ITS PROBLEMS.—Organization of the operating department; economic problems of maintenance of way, and of motive power and equipment; the purchase of materials and their distribution; train movement; yard and terminal services. Registration in the second semester is permitted only to those who obtain credit in the work of the first semester. Open to students of Business Administration only. *I, II; (2).* Not given in 1913-14.

Professor DEWSNUP

*Prerequisite:* Economics 1 and 3.]

#### COURSES FOR GRADUATES

Every student entering upon graduate work in economics must have had a thoro course in the principles of the science and should also have studied some special part of the field of economics, such as public finance or money and banking.

The department of economics includes general economics, economic history, finance, commerce, and industry.

Complete sets of all the important French, German, English, and American economic and financial journals are on hand; ninety periodicals, foreign and domestic, in economics, finance, commerce, industry, statistics, etc., are currently received. The library is especially strong in railroad literature, economic history, labor, finance, and general theory.

[101. ECONOMIC THEORY.—*Twice a week; I, II; (1 unit).* Not given in 1913-14. Professor KINLEY]

[102. ADVANCED GENERAL ECONOMICS.—*Twice a week; I, II; (1 unit).* Not given in 1913-14. Professor KINLEY]

103. RAILWAY ADMINISTRATION.—Investigation, report, and discussion of topics relating to current railway management. The course is primarily intended for candidates for the degree of A. M. in Railway Administration. *Once a week. I, II; (½ unit).*

Professor DEWSNUP

104. FOREIGN AND COLONIAL COMMERCE OF THE UNITED STATES.—The foreign commerce of the United States as shown in government publications. *Twice a week; II; (1 unit).*

Assistant Professor LITMAN



105. PUBLIC FINANCE.—The history and theory of public revenue and expenditure. *Twice a week; I, II; (1 unit).*

Professor BOGART

106. RAILWAY POLICY.—A: History of railway development in the United States. B: History of railway development in foreign countries, particularly in western Europe. C: The state and the railway. The cycle of topics requires three years for the completion of the course. The topic in 1913-14 is A. *Once a week; I, II; (½ unit).*

Professor DEWSNUP

[107. THE CORPORATION IN ECONOMIC EVOLUTION.—*Once a week; I, II; (¼ unit).* Not given in 1913-14. Professor ROBINSON]

109. THEORY OF INDUSTRIAL CONSOLIDATIONS.—The nature of industrial consolidations; the conditions and causes responsible for their development and their effects upon the production and distribution of wealth. *Once a week; I, II; (¼ unit).* Professor ROBINSON

118. SEMINAR.—I, II.

Professor KINLEY and others

120. HISTORY OF ECONOMIC THOUGHT.—*Twice a week; I; (1 unit).*

Dr. THOMPSON

[122. ADVANCED ECONOMIC HISTORY OF THE UNITED STATES.—*Twice a week; I, II.* Not given in 1913-14. Professor BOGART]

### ACCOUNTANCY

(See also ECONOMICS.)

NOTE.—The only courses in accountancy open to students not registered in business administration are 1, 8, 9, 10, and 11. The courses in accountancy may not be counted towards a major in economics.

1. ELEMENTARY AND INTERMEDIATE ACCOUNTING.—The technique of accounts as covered by the ordinary rules of bookkeeping; the application of those rules to the science of accountancy. If elected this course must be taken throughout the year in order to secure credit. *I, II; (3).*

Mr. CHASE, Mr. SCOVILL

*Prerequisite:* Thirty hours of university credit and registration in Economics 1.

2. ADVANCED ACCOUNTING AND AUDITING.—The technique of bookkeeping as applied in accounting in its more advanced stage. If elected this course must be taken throughout the year in order to secure credit. *I, II; (3).*

Mr. CHASE, Mr. SCOVILL

*Prerequisite:* Accountancy 1. Open to students of business administration only.

3. ACCOUNTING PROBLEMS AND AUDITING.—Modern business organization such as partnership, corporation, and cost accounting;

municipal accounting and the accounting of the amalgamation of companies; auditing. If elected this course must be taken throughout the year in order to secure credit. *I, II; (3).* Mr. CHASE

*Prerequisite:* Accountancy 2. Open to students of business administration only.

8. ELEMENTARY GOVERNMENTAL ACCOUNTING.—Use of governmental reports; governmental accounting. *I; (2).*

Professor FRAZER

*Prerequisite:* Accountancy 1 and either concurrent registration or previous credit in Economics 5.

9. INSTITUTIONAL ACCOUNTING.—Functional organization; personnel; budgetary control; purchasing; store-keeping; perpetual inventories *II; (2).*

Professor FRAZER

*Prerequisite:* Accountancy 1, and eight hours in economics, political science, or sociology.

10. SHOP MANAGEMENT AND COST KEEPING.—Types of industries; the labor distribution; the materials used. The best types of records suitable for each kind of industry are discussed, and the work is presented from the standpoint of the engineer and shop manager. *II; (2).*

Mr. SCOVILL

*Prerequisite:* Open only to engineering students who have had Economics 1 or 2.

11. FARM ACCOUNTING.—The best practical system of keeping farm accounts; the designing of accounting systems for different kinds of farm operations and for different kinds of farming. *I; (2).*

Mr. SCOVILL

*Prerequisite:* Open to junior and senior students of agriculture only.

## EDUCATION

WILLIAM CHANDLER BAGLEY, Ph.D., *Professor*

LOUIS DELTA COFFMAN, Ph.D., *Professor*

CHARLES HUGHES JOHNSTON, Ph.D., *Professor*

HORACE ADELBERT HOLLISTER, A.M., *Professor*

LEWIS FLINT ANDERSON, Ph.D., *Assistant Professor*

WILFORD STANTON MILLER, A.M., *Assistant and Secretary*

CHARLES LEROY HARLAN, A.B., *Assistant*

ALFRED LAURENCE HALL-QUEST, A.M., *Assistant*

The courses of the department fall into two general divisions: courses primarily for professional training and courses more speci-



fically designed for general culture. The first division includes courses 1, 4, 6, 9, 10, 11, 15, 18, and 20; the second division, courses 2, 5, 12, 13, and 16. Students majoring in education will be required to take at least three hours in psychology in addition to the requirements in education. Courses 1 and 5 in psychology are especially recommended.

### Honors

Candidates for honors in education must offer:

1. A minimum of 18 hours in education and 6 hours in psychology. Teachers' courses, not to exceed 3 hours in all, offered by other departments of the University, may, with the approval of the department of education, be counted as part of this requirement.

2. Minors in either (1) psychology (at least 9 hours exclusive of the 6 hours counted toward the major) and one subject selected from those that are usually taught in secondary schools, or (2) any two related subjects commonly taught in secondary schools. No course may be counted toward the minimum requirement for minors which may not be counted toward the major requirement in such subjects.

### INTRODUCTORY COURSES

1. INTRODUCTION TO EDUCATION.—The processes of education traced back to the basic principles of biology, psychology, and sociology which explain and justify them. (Preceded by a brief sketch of the public school system.) I, II; (3). Professor BAGLEY

*Prerequisite:* Two years of university work.

2. HISTORY OF EDUCATION.—The development of educational theory and practise in their relation to the history of civilization. II; (5). Assistant Professor ANDERSON

*Prerequisite:* Two years of university work.

16. SOCIAL EDUCATION.—The school as a social factor in its relation to the home, the church, and the state; relation of education to child labor, vocation, and crime; educational extension. II; (3). Professor COFFMAN

*Prerequisite:* Two years of university work.

### INTERMEDIATE COURSES

10. OBSERVATION AND THE TECHNIQUE OF TEACHING.—Systematic observation of classroom work in neighboring high schools;

weekly conferences for the discussion of observations; two lectures each week upon the technique of teaching; preparation by students of plans illustrating types of school exercises. *I, II; (3).*

Professor BAGLEY

*Prerequisite:* Education 1.

15. SCHOOL HYGIENE.—The hygienic aspects of school architecture and equipment; the hygiene of posture, exercise, and fatigue, and of reading and writing; the bearing of hygienic principles upon the course of study, the daily program, and other details of administration and teaching. *II; (3).*

Professor BAGLEY

*Prerequisite:* Education 1.

#### ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

4. PROBLEMS OF EDUCATIONAL ADMINISTRATION.—The interpretation of present tendencies as exemplified in the school systems of typical cities and states, and in recent educational experiments in administration, discipline, methods, and subject-matter. *I; (3).*

Professor COFFMAN

*Prerequisite:* Education 1, 2.

5a. COMPARATIVE EDUCATION.—Elementary education in the United States, England, Germany, and France. *I; (3).*

Assistant Professor ANDERSON

*Prerequisite:* Education 1, 2.

6. PRINCIPLES OF SECONDARY EDUCATION.—The function of the secondary school in a system of education. *I; (3).*

Professor JOHNSTON

7. SOCIAL ADMINISTRATION OF THE MODERN AMERICAN HIGH SCHOOL.—The social problems of secondary education. *II; (3).*

Professor JOHNSTON

*Prerequisite:* Education 1.

12. HISTORY OF AMERICAN EDUCATION.—*I; (2).*

Assistant Professor ANDERSON

*Prerequisite:* Education 2.

13a. EDUCATIONAL CLASSICS.—The sources of the history of education; the educational writings of Plato, Aristotle, Quintilian, Montaigne, Milton, Locke, Rousseau. *I; (3).*

Assistant Professor ANDERSON

*Prerequisite:* Education 2.



13b. EDUCATIONAL CLASSICS.—(Continuation of 13a.) The educational theories of Pestalozzi, Herbart, Froebel, Herbert Spencer, and others. *II*; (3). Assistant Professor ANDERSON

*Prerequisite:* Education 2.

18. METHOD IN EDUCATIONAL RESEARCH.—The statistical method applied to educational investigation. *I*; (2).

Professor COFFMAN

*Prerequisite:* Education 1.

20a. THEORY OF SUPERVISION.—The problems of supervision; the supervisor's functions in training and improving teachers. (Open only to graduate students and to seniors who are either graduates of normal schools or experienced teachers, or who are preparing for the work of supervision in special subjects, such as household science, manual training, and physical training.) *II*; (3).

Professor COFFMAN

*Prerequisite:* Education 1.

20b. THEORY AND PRACTISE OF SCHOOL SUPERVISION.—Course 20a with two periods each week devoted to the observation and criticism of teaching in elementary and high schools. *II*; (5).

Professor COFFMAN

25. EDUCATIONAL PSYCHOLOGY.—*II*; (3). Professor BAGLEY

27. HIGH SCHOOL CURRICULA.—Secondary studies, their functions and values. *II*; (3). Professor JOHNSTON

*Prerequisite:* Education 1 and 6.

41. VOCATIONAL EDUCATION.—Institutions and methods of vocational and industrial education. *I*; (2). Professor JOHNSTON

*Prerequisite:* Education 1 and 16.

#### COURSES FOR GRADUATES

Graduate students who are taking their major work in education must have had as a prerequisite for such study Education 1, 2, and 10 and at least one elementary course in psychology. Work in the biological sciences, in philosophy, and in psychology is also recommended.

108. HISTORY OF INDUSTRIAL AND VOCATIONAL EDUCATION.—Industry and industrial training in Egypt, Greece, Rome; industry and industrial training in the Middle Ages; the industrial revolution and its effect upon education; recent tendencies in the de-

velopment of agricultural and industrial high schools, agricultural colleges, monotéchnic schools, continuation schools. *Twice a week; II; (1 unit).* Assistant Professor ANDERSON

105. SEMINAR IN THE HISTORY OF EDUCATION.—*I, II; arrange hours and unit values.* Assistant Professor ANDERSON

106. SEMINAR IN SECONDARY EDUCATION.—*I, II; arrange hours and unit values.* Professor JOHNSTON

112. PRINCIPLES OF EDUCATION.—The organization of public education in the United States and other countries, the aims of education; a brief resumé of the principles of teaching. (Designed for the general student and not open for credit to students who have elected education as a major subject.) *Twice a week; I; (½ unit.)* Professor BAGLEY

119. THE ELEMENTARY CURRICULUM.—The functions and values of elementary school subjects; practical exercises in the construction of school curricula. (Designed especially for superintendents and principals.) *Three times a week; II. (1 unit).* Professor COFFMAN

125. SEMINAR IN EDUCATIONAL PSYCHOLOGY.—*Two times a week. II; (1 unit).* Professor BAGLEY

114. HIGHER EDUCATION.—Problems of organization, administration, and teaching in colleges and universities. *I; arrange hours and unit values.* Professor JOHNSTON

DEPARTMENTAL CONFERENCE.—*Bi-weekly I, II.*

## ELECTRICAL ENGINEERING

MORGAN BROOKS, Ph.B., M. E., *Professor*

ELLERY BURTON PAINE, M.S., E.E., *Associate Professor, Acting Head of Department*

EDWARD HARDENBERGH WALDO, A.B., M.S., M.E., *Assistant Professor*

JOHN MYRON BRYANT, M.S., E.E., *Assistant Professor*

PHILIP SHERIDAN BIEGLER, B.S., *Associate*

LEONARD VAUGHAN JAMES, M.S., E.E., *Associate*

IRA WILLIAM FISK, M.S., *Associate*

\*FRANK CARLTON LORING, A.M., *Instructor*

ABNER RICHARD KNIGHT, M.E., *Instructor*

†CHARLES RUBY MOORE, B.S., *Instructor*

I. ELECTRICAL ENGINEERING.—Electrical machinery; selection, installation and operation; distribution of power; motor applica-

\*Resigned, December, 1913.

†Second Semester.



tions. (For municipal and sanitary engineers.) *II*; (2).

Professor BROOKS

*Prerequisite*: Physics 1, 3; junior standing.

3. DYNAMO ELECTRICAL MACHINERY.—Laws of electric and magnetic circuits; construction and operation of direct current generators and motors. *I*; (3).

Associate Professor PAINE, Assistant Professor BRYANT, Mr. JAMES, Mr. FISK, Mr. KNIGHT.

*Prerequisite*: Physics 1, 3; Mathematics 9.

5. ALTERNATING CURRENTS.—A mathematical and graphical treatment of the principles of periodic currents; theory of the simple phenomena in transmission lines and transformers. *II*; (4).

Associate Professor PAINE, Assistant Professor BRYANT, Mr. JAMES, Mr. FISK.

*Prerequisite*: Electrical Engineering 3.

6. ALTERNATING CURRENTS.—(For mechanical engineers.) *I*; (2).

Professor BROOKS

*Prerequisite*: Electrical engineering 3 or 16.

9. LIGHTING.—Electric lamps and other illuminants, and their effective use; interior wiring; methods of electrical distribution. (For architects.) *II*; (1).

Professor BROOKS

*Prerequisite*: Junior standing.

13. SEMINAR.—Electrical railroading; illumination; telegraphy; telephony; storage batteries; electric metallurgy. *I, II*; (1).

Associate Professor PAINE

*Prerequisite*: Junior standing

14. ALTERNATING CURRENTS.—Alternating-current transformers and generators. *I*; (4).

Associate Professor PAINE, Assistant Professor BRYANT, Mr. JAMES, Mr. FISK

*Prerequisite*: Electrical Engineering 5.

16. DYNAMO-ELECTRIC MACHINERY.—Direct-current generators; motors; distribution circuits; storage batteries. Laboratory practise. (For mechanical engineers.) *II*; (4).

Professor BROOKS, Mr. MOORE, Mr. KNIGHT

*Prerequisite*: Physics 1, 3; Mathematics 9.

17. ADVANCED ALTERNATING CURRENTS.—Synchronous, induction, and commutator alternating current motors; rotary converters; distributed inductance and capacity; transient phenomena. *II*; (4). Associate Professor PAINE, Assistant Professor BRYANT, Mr. JAMES, Mr. FISK

*Prerequisite:* Electrical Engineering 14, 24.

20. ELECTRICAL ENGINEERING LABORATORY.—The construction of special apparatus or other work approved by the department. (Elective for juniors and seniors.) *I, II*; (1 to 3).

Assistant Professor BRYANT, Mr. LORING, Mr. MOORE

22. ELECTRICAL ENGINEERING LABORATORY.—Direct current laboratory accompanying Electrical Engineering 3. *I*; (2).

Assistant Professor BRYANT, Mr. BIEGLER, Mr. KNIGHT

*Prerequisite:* Registration in Electrical Engineering 3.

23. ELECTRICAL ENGINEERING LABORATORY.—Determination of the flux and E. M. F. waves of alternators. Alternating current circuits, instruments. *II*; (2).

Assistant Professor BRYANT, Mr. BIEGLER

*Prerequisite:* Electrical Engineering 3, 22; registration in Electrical Engineering 5.

24. ELECTRICAL ENGINEERING LABORATORY.—Advanced direct and alternating current testing. *I*; (2).

Assistant Professor BRYANT, Mr. MOORE

*Prerequisite:* Electrical Engineering 23; registration in Electrical Engineering 14.

27. ELECTRICAL ENGINEERING LABORATORY.—Advanced alternating current testing. *II*; (2).

Assistant Professor BRYANT, Mr. MOORE

*Prerequisite:* Electrical Engineering 24; registration in Electrical Engineering 17.

28. ELECTRICAL ENGINEERING LABORATORY.—Testing of dynamos and motors. *I*; (1).

Mr. BIEGLER

*Prerequisite:* Electrical Engineering 1.

29. ELECTRICAL ENGINEERING LABORATORY.—Alternating current operation and testing. (For students in mechanical engineering.) *II*; (2).

Mr. MOORE

*Prerequisite:* Electrical Engineering 6.



32. ELECTRICAL DESIGN.—Calculation and design of electromagnets and of dynamos, direct and alternating, and of transformers. *I*; (2). Assistant Professor WALDO, Mr. KNIGHT

*Prerequisite.* Electrical Engineering 5; registration in Electrical Engineering 14.

34. ELECTRICAL DESIGN.—Calculation of induction motors and converters. Problems in power plant design. *II*; (3).

Assistant Professor WALDO, Mr. KNIGHT

*Prerequisite:* Electrical Engineering 14.

35. THESIS.—First semester, preliminary reading and investigation; second semester, completion. Subjects must be chosen and approved before the first Monday in November. *II*; (3).

#### COURSES FOR GRADUATES

Entrance upon graduate work in electrical engineering presupposes the full undergraduate course in that subject.

101. ADVANCED COURSE IN ALTERNATING CURRENTS.—The theory of Transient Phenomena; polyphase circuits; alternating current measuring apparatus. *Twice a week; I, II; (1½ units).*

Associate Professor PAINE

103. ELECTRICAL DESIGN.—The development of plans for an electrical machine or apparatus of specified character; or for the arrangement of an electrical plant; or for the installation of such machinery or apparatus. *Twice a week; II; (1 unit).*

Assistant Professor WALDO

104. TELEGRAPHY AND TELEPHONY.—*Once a week; I, II; (1 unit).*

Professor BROOKS, Associate Professor PAINE

105. ELECTRICAL ENGINEERING RESEARCH.—An experimental investigation of some electrical phenomena, or tests of some electrical machine, or of a plant of such machines. *Twice a week; I, II; (1 to 3 units).*

Assistant Professor BRYANT

106. ILLUMINATION.—*Once a week; I, II; (1 unit).*

Professor BROOKS, Assistant Professor BRYANT

#### ENGINEERING

(See ARCHITECTURE, CIVIL ENGINEERING, DRAWING, ELECTRICAL ENGINEERING, MECHANICAL ENGINEERING, MECHANICS, MINING ENGINEERING, MUNICIPAL AND SANITARY ENGINEERING, PHYSICS, RAILWAY CIVIL ENGINEERING, RAILWAY ELECTRICAL ENGINEERING, AND RAILWAY MECHANICAL ENGINEERING.)

THE ENGLISH LANGUAGE AND LITERATURE

(Including RHETORIC)

DANIEL KILHAM DODGE, Ph.D., *Professor*  
THOMAS ARKLE CLARK, B.L., *Professor, Rhetoric*  
STUART PRATT SHERMAN, Ph.D., *Professor*  
RAYMOND MACDONALD ALDEN, Ph.D., *Professor and Chairman*  
EDWARD FULTON, Ph.D., *Associate Professor*  
EDWARD CHAUNCEY BALDWIN, Ph.D., *Assistant Professor*  
HARRY GILBERT PAUL, Ph.D., *Assistant Professor*  
FRANKLIN WILLIAM SCOTT, Ph.D., *Assistant Professor, Secretary*  
HARRIE STUART VEDDER JONES, Ph.D., *Assistant Professor*  
THACHER HOWLAND GUILD, A.M., *Associate*  
JACOB ZEITLIN, Ph.D., *Associate*  
CHARLES HENRY WOOLBERT, A.M., *Associate*  
MARTHA JACKSON KYLE, A.M., *Instructor*  
HERBERT LESOURD CREEK, Ph.D., *Instructor*  
CLARENCE VALENTINE BOYER, Ph.D., *Instructor*  
ARTHUR JERROLD TIEJE, Ph.D., *Instructor*  
JOHN CLARK JORDAN, A.M., *Instructor*  
GERTRUDE SCHOEPERLE, Ph.D., *Instructor*  
GEORGE FRISBIE WHICHER, A.M., *Instructor*  
CLARISSA RINAKER, Ph.D., *Instructor*  
EASLEY STEPHEN JONES, A.M., *Instructor*  
MERVIN JAMES CURL, A.M., *Instructor*  
ROGER SHERMAN LOOMIS, A.M., B.Litt., *Tutor*  
SADA ANNIS HARBARGER, A.M., *Assistant*  
MARION CHARLOTTE LANDEE, *Assistant*  
RUTH KELSO, A.M., *Assistant*  
ALTA GWINN, A.M., *Assistant*  
WALTER ALBERT BUCHEN, A.M., *Assistant*  
LEW R SARETT, A.B., *Assistant*  
EMERSON GRANT SUTCLIFFE, A.B., *Assistant*  
THOMAS GREGORY GOODWIN, A.B., *Assistant*  
HARRISON MCJOHNSTON, A.B., *Assistant*  
THOMAS BLAINE STANLEY, A.B., *Assistant*  
RAYMOND EPHRAIM DIXON, A.M., *Assistant*

*Major*

A student making English a major must take 24 hours in English in addition to Rhetoric 1 and the first semester of English 1 or 10.



Of these 24 hours, at least 12 must be in English literature, and at least 3 in composition. Of the total 24 hours, at least 6 must be taken in advanced courses.

### *Honors*

Candidates for honors in English must offer:

1. Work in English amounting to 24 hours in addition to Rhetoric I and the first semester of English I or 10.
2. At least 6 hours in advanced courses, which may be in either English literature or English composition.
3. A minimum of 15 hours in English literature in addition to the first semester of English 10, and a minimum of 6 hours in English composition in addition to Rhetoric I.
4. Work aggregating 24 hours in two minor subjects, which must be in two foreign languages or in one foreign language and either history or philosophy. French I and German I and 3 may not be counted toward the fulfillment of the minor requirements.

## *A. LITERATURE AND LANGUAGE*

### ELEMENTARY COURSES

1. SURVEY OF ENGLISH LITERATURE.—(Credit is not given for either semester separately, nor for the course in addition to course 10 or course 20. Only one semester's work is credited toward a major in English. Seniors in the College of Liberal Arts and Sciences may receive but half credit.) *I, II; (4).*

Professor SHERMAN, Assistant Professor BALDWIN, Associate Professor FULTON, Dr. BOYER, Dr. CREEK, Mr. JORDAN, Dr. TIEJE, Mr. WHICHER, Dr. SCHOEPPERLE, Dr. RINAKER

*Prerequisite:* A year's college work.

10. INTRODUCTION TO LITERATURE.—A (*First semester*), The Forms of Prose Literature; B (*Second Semester*), The Forms of Poetry. (This course is intended only for those who expect to include a considerable amount of literature, in English or some other language, in their curriculum. Credit is not given for the course in addition to course I or course 20. Only one semester's work is credited toward a major in English. Seniors in the College of Liberal Arts and Sciences may receive but half credit. Credit is not given for the first semester separately.) *I, II; (3).*

Professor ALDEN, Assistant Professor PAUL, Dr. ZEITLIN, Miss KYLE, Mr. LOOMIS

*Prerequisite:* The minimum entrance requirements in English.

16. AMERICAN LITERATURE.—(Credit is not given for either semester separately.) *I, II; (2).* Assistant Professor PAUL

*Prerequisite:* English I or IO.

17. THE ENGLISH LANGUAGE.—Some account of its history, with special reference to the characteristics and usage of modern English. *I; (3).* Associate Professor FULTON

*Prerequisite:* Rhetoric I.

20. THE CHIEF ENGLISH WRITERS.—(This course is offered only for those whose program admits of but one semester's work in English, and who therefore may not register for course I. It is not accepted, like course I, as a prerequisite for more advanced courses. Credit is not given for the course in addition to course I or course IO. Seniors in the College of Liberal Arts and Sciences may receive but half credit.) *I or II; (4).*

Professor ALDEN, Professor DODGE, Dr. BOYER, Dr. CREEK, Dr. TIEJE, Mr. BUCHEN

*Prerequisite:* A year's college work.

23. INTRODUCTION TO SHAKESPEARE.—*I or II; (3).*

Professor SHERMAN, Mr. GUILD

*Prerequisite:* English I or IO.

#### INTERMEDIATE COURSES

*Prerequisite:* Eleven hours of English literature, or eight hours of English literature and eight hours of a foreign language.

19. LITERARY STUDY OF THE BIBLE.—Hebrew literature as an expression of the life of the race that produced it; the debt, both ethical and artistic, of modern life to ancient Hebrew thought. (Either semester may be taken separately.) *I, II; (3).*

Assistant Professor BALDWIN

24. ENGLISH LITERATURE OF THE VICTORIAN PERIOD.—*II; (3).*

Miss KYLE

29. ENGLISH LITERATURE FROM 1557 TO 1688, EXCLUSIVE OF THE DRAMA.—*I; (3).*

Assistant Professor BALDWIN

31. ENGLISH LITERATURE FROM 1688 TO 1789.—*II; (3).*

Assistant Professor PAUL

32. THE GREATER ENGLISH CRITICS OF THE 19TH CENTURY.—*II; (3).*

Associate Professor FULTON

33. ENGLISH LITERATURE FROM 1789 TO 1837.—*I; (3).*

Dr. ZEITLIN



## ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

*Prerequisite:* Sixteen hours of English literature. These courses, however, are open to any junior or senior with the approval of the instructor concerned.

3. THE POETRY OF MILTON.—Origins, forms, artistic and ethical values; Milton's place in English literary history. *II*; (3).

Assistant Professor BALDWIN

4. ENGLISH VERSIFICATION.—Theory of English rhythm and metre; history of the development of the forms of English verse. *I*; (3).

Professor ALDEN

5. SHAKESPEARE.—Intensive study of a few plays, with special emphasis on *Hamlet*. *II*; (3).

Professor DODGE

7. CHAUCER AND HIS CONTEMPORARIES.—(The first semester, dealing with Chaucer exclusively, may be taken for separate credit.) *I, II*; (3).

Assistant Professor JONES

8. OLD ENGLISH (ANGLO-SAXON).—Grammar; prose; short poems; *Beowulf*. (The first semester may be taken separately.) *I, II*; (3).

Professor DODGE

14. STUDIES IN THE HISTORY OF JOURNALISM.—*I, II*; (2).

Assistant Professor SCOTT

15. TEACHERS' COURSE.—Methods of teaching English literature and composition in the high school. (This course is not credited toward advanced degrees, or toward a major in English. Either semester may be taken separately.) *I, II*; (2).

Assistant Professor PAUL

18. MODERN ENGLISH GRAMMAR.—The structure of the sentence and its analysis into the parts of speech; the common grammatical categories; the peculiarities of English syntax. *II*; (3).

Dr. ZEITLIN

35. THE ENGLISH DRAMA (EXCLUSIVE OF SHAKESPEARE).—A (*first semester*): from the beginning to 1600. B (*second semester*): from 1600 to 1700. (Either semester may be taken for separate credit.) *I, II*; (3).

Professor DODGE, Professor SHERMAN

38. THE ARTHURIAN TRADITION IN ENGLAND.—Primitive elements; the historical Arthur; Celtic, French, and Italian influences; the tradition in England from the early romances to Arnold. *II*; (3).

Dr. SCHOEPPERLE

[39. INTRODUCTION TO THE LITERATURE OF THE MIDDLE AGES.—European culture from the fourth century; the relation of English and continental literature to the fourteenth century. *I*; (3). Not given in 1913-14.

Dr. CREEK]

45. THE DEVELOPMENT OF THE MODERN DRAMA.—Dramatic tendencies in the eighteenth and nineteenth centuries, both in England and on the Continent. Representative readings; lectures from the standpoint of comparative literature. *I, II; (2).*

Mr. GUILD and others

COURSES FOR GRADUATES

Students who enter upon graduate work with English as their major subject are expected to give evidence of ability to write well, and of a considerable acquaintance with English literature. Their progress in the field of English will depend, however, in great measure upon the breadth and thoroughness of their training as undergraduates in the following closely allied subjects: the Classics, the modern languages, history, and philosophy.

A reading knowledge of French and German is from the beginning highly desirable; after the first year it is indispensable.

*The Degree of Master of Arts in English.* In addition to complying with the general rules of the Graduate School, candidates for the degree of Master of Arts in English must comply with the following rules of the department of English: (1) they must choose a portion of their work from the group of courses described as "for graduates"; (2) must offer an elementary course in Anglo-Saxon; and (3) must take, besides the regular semester examinations in all their courses, a general examination, oral or written as the department may prescribe, which shall be a final test of the candidate's fitness and ability.

*The Degree of Doctor of Philosophy in English.* Candidates for the degree of Doctor of Philosophy in English may expect to be examined on the entire field of the English language and literature. They are urged, furthermore, to acquaint themselves as fully as possible with the history of the philosophy of the period in which their main interest lies, and with the foreign language and literature most closely related to English in that period.

101. RESEARCH IN SPECIAL PERIODS.—Competent graduate students are encouraged to seek the advice and assistance of the department of English and to submit to the department plans for study in the language or literature of the periods mentioned below.

A. Anglo-Saxon language and literature.

Professor DODGE, Dr. ZEITLIN

B. Thirteenth and Fourteenth Centuries.

Assistant Professor JONES



- C. Sixteenth Century. Professor ALDEN, Professor DODGE
- D. Seventeenth Century.  
Professor ALDEN, Assistant Professor BALDWIN
- E. Eighteenth Century.  
Professor SHERMAN, Assistant Professor PAUL
- F. Nineteenth Century.  
Professor SHERMAN, Associate Professor FULTON
104. SEMINAR IN LYRICAL POETRY.—Subject: The Religious Lyric in the 17th Century. *Twice a week; II; (1 unit)*. Professor ALDEN
105. SHAKESPEARE'S SONNETS.—The text and the problems involved in its interpretation. *Twice a week; I; (1 unit)*.  
Professor ALDEN
106. ENGLISH LITERARY CRITICISM.—(A. 16th and 17th centuries. Omitted in 1913-14.) B. 18th century. *Twice a week; I, II; (1 unit)*.  
Associate Professor FULTON
109. GERMAN AND SCANDINAVIAN INFLUENCES ON ENGLISH LITERATURE OF THE EIGHTEENTH AND NINETEENTH CENTURIES.—*Twice a week; I; (1 unit)*.  
Professor DODGE
110. OLD ENGLISH (ANGLO-SAXON) POETRY.—*Twice a week; I, II; (1 unit)*.  
Professor DODGE
- [113. HISTORICAL PROSE SYNTAX.—The forces, native and foreign, at work in the development of English prose style as far as it relates to sentence structure. *Twice a week; I, II*. Not given, 1913-14.  
Dr. ZEITLIN]
- [126. ENGLISH BALLADS AND METRICAL ROMANCES.—*Twice a week, I, II*. Not given, 1913-14. Assistant Professor JONES]
127. MIDDLE ENGLISH.—Critical reading of Middle English texts. *Twice a week; I, II; (1 unit)*. Assistant Professor JONES
136. THE TRANSITION FROM THE SEVENTEENTH TO THE EIGHTEENTH CENTURY; THE RISE OF CLASSICISM.—*Twice a week; I, II; (1 unit)*. Assistant Professor PAUL
- [137. NINETEENTH CENTURY PROSE WRITERS.—*Twice a week; I, II*. Not given, 1913-14. Professor SHERMAN]
138. THE ROMANTIC MOVEMENT IN ENGLAND.—*Twice a week; I, II; (1 unit)*. Professor SHERMAN]
- [150. OLD IRISH.—Selections from the glosses and from the Táin bo Cualnge; lectures on Old and Middle Irish literature. Not given, 1913-14. Dr. SCHOEPPERLE]

B. RHETORIC

ELEMENTARY COURSES

1. \*RHETORIC AND THEMES.—Required for students in the Colleges of Liberal Arts and Sciences, Engineering, and Agriculture. *I, II; (3).*

Assistant Professor SCOTT (in charge), Associate Professor FULTON, Assistant Professor JONES, Mr. GUILD, Dr. ZEITLIN, Dr. BOYER, Dr. CREEK, Dr. TIEJE, Mr. JORDAN, Dr. SCHOEPPERLE, Mr. WHICHER, Dr. RINAKER, Mr. E. S. JONES, Mr. CURL, Mr. WARNOCK, Mr. BUCHEN, Miss HARBARGER, Miss KELSO, Miss GWINN, Mr. SUTCLIFFE, Mr. GOODWIN, Mr. SARETT, Mr. MCJOHNSTON, Mr. STANLEY, Mr. DIXON

*Prerequisite:* The minimum entrance requirements in English.

For the benefit of those whose course is irregular, a limited number of sections in each semester take up the work of the other semester. The course is not counted toward a major in English.

7. PUBLIC SPEAKING.—Reading aloud, with occasional memory work. Lectures; class exercises; individual instruction. *I, II; (2).*

Mr. WOOLBERT, Mr. SARETT, Miss LANDEE

*Prerequisite:* Rhetoric I.

INTERMEDIATE COURSES

3. ENGLISH COMPOSITION.—Short themes, with an occasional long theme. *I or II; (3).* Professor CLARK, Dr. ZEITLIN, Miss KYLE

*Prerequisite:* Rhetoric I.

4. ARGUMENTATION AND DEBATE.—Practise in oral and written argumentation; brief-making; tests of evidence and reasoning; sources of material; extemporaneous presentation of arguments in class debates. (Credit is given separately for the first semester, which is devoted more particularly to written work.) *I, II; (3).*

Mr. WOOLBERT

5. THE FORMS OF PUBLIC ADDRESS.—Extempore speaking; formal public speaking; discussion of current events; parliamentary procedure. *I, II; (2).*

Mr. WOOLBERT

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\*Students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric I may be excused from the first semester's work. The examination for those desirous of meeting this qualification will be given at 7 p. m., September 21.

Students who show in the first two weeks that they are not prepared to do composition work of collegiate grade will be assigned to a special course parallel to the first semester of Rhetoric I, but involving additional work.



6. NARRATIVE COMPOSITION.—Practise in short story writing. (Intended for those who have some aptitude for literary work.) *I*; (3). Mr. GUILD

*Prerequisite:* Two years of college work and the consent of the instructor.

10 BUSINESS WRITING.—General business correspondence, exclusive of the sales letter; practise in incidental writing, summaries, etc. Lectures, and discussions of the practise of the student in applying the principles presented in the course. (In the second semester open only to those taking a business course, except by special permission. Not counted toward a major in English.) *I or II*; (2).

Professor CLARK, Mr. McJOHNSTON

*Prerequisite:* Rhetoric I.

12. NEWSPAPER WRITING.—News writing; interviewing and reporting; news correspondence; news form; news value; typography; proof reading. *I, II*; (2). Mr. BUCHEN

*Prerequisite:* Rhetoric I.

19. AGRICULTURAL NEWS WRITING.—Class exercises; lectures; assignments in gathering and preparing material for agricultural papers. *II*; (3). Assistant Professor SCOTT

*Prerequisite:* Junior or senior standing in the College of Agriculture. Rhetoric I.

20. EXPOSITORY COMPOSITION.—Weekly themes, based on Steeves and Ristine's *Representative Essays in Modern Thought*. (Open only to a limited number of students, and only on recommendation. Credit is not given for this course in addition to course 6). *I*; (3).

Dr. TIEJE

*Prerequisite:* Rhetoric 3.

21. SALES CORRESPONDENCE.—The economic and psychological principles underlying successful sales letter writing; planning the letter sales campaign; the form of the follow-up letter; analysis of markets, etc. *I*; (2). Mr. McJOHNSTON

*Prerequisite:* Rhetoric 10. Open to students in business administration only.

22. SUMMARIZING AND ABSTRACTING.—Summarizing, briefing, and making reports; abstracts of correspondence on file; summarizing of commercial and economic data. *II*; (2). Mr. McJOHNSTON

*Prerequisite:* Rhetoric 10. Open to students in business administration only.

25. SENIOR CONFERENCES ON WRITTEN WORK.—Each senior will present to the instructor all the written papers presented during the year in his different courses for review and criticism by the instructor. Rewriting of such papers may be required if, in the opinion of the instructor, they are open to serious criticism. [Required of all seniors in the Courses in Business Administration.] *I, II; (1).*

Mr. McJOHNSTON

#### ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

8. INTERPRETIVE READING.—(This course is intended for advanced students, particularly intending teachers. Credit is given only to students registered also in some advanced course in literature, such as English 3, 4, 5, or 15. While open to graduate students, the course is not credited toward advanced degrees.) *II; (1).*

Mr. GUILD

15. ADVANCED NEWSPAPER WRITING.—The larger problems in reporting; application of principles of history, economics, and political science to current public events; editing; editorial writing. *I, II; (3).*

Assistant Professor SCOTT

*Prerequisite:* Rhetoric 12 or the consent of the instructor.

17. ADVANCED COMPOSITION.—Practise writing, with special emphasis on the study of structure; criticism of current periodical literature; the developing of material for reports, magazine articles, etc. (Open to a limited number of students, and only on recommendation.) *II; (3).*

Mr. GUILD

*Prerequisite:* Two years of college work.

### ENTOMOLOGY

(See also BOTANY, PHYSIOLOGY, and ZOOLOGY.)

STEPHEN ALFRED FORBES, Ph.D., LL.D., *Professor*

ALEXANDER DYER MACGILLIVRAY, Ph.D., *Associate Professor*

JUSTUS WATSON FOLSOM, D.Sc., *Assistant Professor*

\*HUGH GLASGOW, Ph.D., *Instructor*

†ROBERT DOUGLAS GLASGOW, Ph.D., *Instructor*

ALVAH PETERSON, A.M., *Assistant*

Entomology as taught at the University is distinctly differentiated from the work in zoology. Students preparing for service as economic entomologists should take as many of the courses offered as possible, including especially 2, 3, 4, 7, 8, 14, and 108. Those pre-

\*Resigned, November 30, 1913.

†From December 1, 1913.



paring for the teaching of zoology should take either 2 and 4, or 3 and 4, or all three of these courses.

1. **ELEMENTARY ENTOMOLOGY.**—Lectures; laboratory; field work. (Open to all students.) *I, II*; (2). Assistant Professor FOLSOM

2. **GENERAL ENTOMOLOGY.**—Field entomology; morphological and physiological entomology; the collection and preservation of specimens; laboratory studies of typical insects; the recognition of adaptive structures and their utilities. (This course and course 3 form a year's work, covering the whole field. Either may be taken independently of the other.) *I*; (5).

Associate Professor MACGILLIVRAY, Assistant Professor FOLSOM  
*Prerequisite:* Entomology 1, or 4, or equivalent.

3. **GENERAL ENTOMOLOGY.**—The classification and determination of insects; the study of life histories in the insectary and by field observation; the collection of information with respect to the ecological relations of insects. *II*; (5). Assistant Professor FOLSOM

*Prerequisite:* Entomology 1 or 4, or equivalent.

4. **INTRODUCTION TO ECONOMIC ENTOMOLOGY.**—Lectures; field work; laboratory. *Section A* for students of agriculture. *I*; *first half*; (2½). *Section B*, for students of horticulture. *II*; *second half*; (2½). Assistant Professor FOLSOM

5. **INTRODUCTION TO RESEARCH.**—Preparation for thesis work. Library, language, manuscript, and advanced laboratory work on assigned topics. (A three-hour course for one semester is required as a preparation for entomological thesis work.) *I or II*; (3 to 5).

Professor FORBES, Associate Professor MACGILLIVRAY, Assistant Professor FOLSOM

*Prerequisite:* Entomology 2, 3.

6. **THESIS INVESTIGATION.**—Subjects selected during the junior year. Three hours a day given to investigation, under the supervision of an instructor, during the senior year. *I, II*; (5).

Associate Professor MACGILLIVRAY, Assistant Professor FOLSOM

7. **SYSTEMATIC ENTOMOLOGY.**—The external anatomy of insects; the terminology of the parts; identification of specimens representing as many as possible of the major groups. *I or II*; (5).

Associate Professor MACGILLIVRAY

*Prerequisite:* Entomology 2.

8. **ADVANCED ECONOMIC ENTOMOLOGY.**—Assigned problems. Field laboratory, insectary, library, and manuscript work, with practise in the special operations of economic entomology. (Intended primarily

to prepare students for service as entomologists in experiment stations and other state and government positions. Agronomy 7 and Horticulture 1, 2, and 3 should also be taken as a part of this preparation.) *I, II; (3).*

Professor FORBES, Assistant Professor FOLSOM

*Prerequisite:* Entomology 4, 2, 3.

9. ADVANCED SYSTEMATIC ENTOMOLOGY.—The identification of the characters upon which genera and species are based. *I or II; (5).*

Associate Professor MACGILLIVRAY

*Prerequisite:* Entomology 2, 7.

10. TAXONOMY OF IMMATURE INSECTS.—*I; (5).*

Associate Professor MACGILLIVRAY

*Prerequisite:* Entomology 1 or 4, 2, 7.

11. CLASSIFICATION OF THE COCCIDAE.—Methods of preparing scale insects for study, the identification of genera and species, and discussion of their morphology, metamorphosis, and phylogeny. *II; (5).*

Associate Professor MACGILLIVRAY

*Prerequisite:* Entomology 1 or 4, 2, 7.

12. SEMINAR.—Reports and discussion upon assigned topics; presentation and discussion of contents of recent entomological publications, and of results of personal research. *I, II; (1).*

*Prerequisite:* One year of entomological work.

13. MEDICAL ENTOMOLOGY.—Insects and the transmission of disease; methods of controlling such insects and preventing the disease due to them. (Primarily for advanced students preparing for medicine.) *I or II; (3).*

*Prerequisite:* Zoology 3, or its equivalent in microscopical technique.

14. ADVANCED ECONOMIC ENTOMOLOGY.—Personal work under direction on assigned problems in economic entomology, intended to prepare advanced students for immediate service as state and government entomologists. Advantage will be taken of the operations and practical problems of the State Entomologist's office so far as available. *I or II, and six weeks of summer vacation.*

*Prerequisite:* Courses in elementary and advanced economic entomology, and in systematic entomology.

#### COURSES FOR GRADUATES

The prerequisite for graduate work in entomology is one year's work in biological courses, including an equivalent of either Zoology 1 or Entomology 1 or 4. Entrance upon major work in entomology requires the equivalent of Entomology 2 and 3.



Graduate students who have had at least one year of college work in biological courses may take for graduate credit any of the preceding courses except 1, 4, and 6. The following courses are open to graduate students only:

102. RESEARCH IN THE MORPHOLOGY AND EMBRYOLOGY OF INSECTS. *Twice a week. I, II; (1 or 2 units).*

Assistant Professor FOLSOM

103. RESEARCH IN FAUNISTIC AND ECOLOGICAL ENTOMOLOGY.—*Once or twice a week; I, II; (1 or 2 units).* Professor FORBES

108. RESEARCH IN ECONOMIC ENTOMOLOGY.—*Once or twice a week; I, II; (1 or 2 units).* Professor FORBES

109. RESEARCH IN SYSTEMATIC ENTOMOLOGY.—*Twice a week; I, II; (1 or 2 units).* Associate Professor MACGILLIVRAY

## THE FINE ARTS

(See ART AND DESIGN and MUSIC. Attention is called also to the courses in esthetics offered by the departments of philosophy, education, architecture, and household science.)

## FLORICULTURE

(See HORTICULTURE.)

## FRENCH

(See ROMANCE LANGUAGES AND LITERATURE.)

## GEOLOGY

(Including MINERALOGY, PALEONTOLOGY and PHYSICAL GEOGRAPHY.)

CHARLES WESLEY ROLFE, M.S., *Professor*

WILLIAM SHIRLEY BAYLEY, Ph.D., *Professor*

THOMAS EDMUND SAVAGE, Ph.D., *Assistant Professor*

JOHN LYON RICH, Ph.D., *Instructor*

DAVID GROSH THOMPSON, A.B., *Assistant*

FRANK LESLIE FLEENER, A.B., *Assistant*

GEORGE WILLIAM HEITKAMP, A.B., *Assistant*

CLARENCE SAMUEL ROSS, A.B., *Assistant*

This department occupies a suite of twenty-seven rooms on the first and second floors of the Natural History building, equipped with apparatus and illustrative material including maps, charts,

projection apparatus, field and laboratory instruments for surveying and mapping, and collections in mineralogy, petrography, and paleontology (especially in the fossil forms which occur in the Mississippi Valley).

The offices and laboratories of the State Geological Survey adjoin those of the department, and a portion of the instructors are also engaged in work for the Survey, while others are cooperating with the United States Geological Survey, thus giving advanced students the advantages which are to be gained from close contact with practical work.

To students who are especially interested in geology the department offers three lines of work, and recommends that the courses be taken in the order indicated below.

**MINERALOGY, PETROGRAPHY, ECONOMIC GEOLOGY.**—For those who care particularly for minerals and rocks, their identification, origin, and transformation, the origin, characteristics, and classification of ores, and the economic qualities of non-metallic minerals, it is recommended that the following courses be taken in the order given: Geology 19, 1, 1a, 5, 5a, 6, 7, 16, 15, 2.

**STRATIGRAPHY, PALEONTOLOGY.**—If the student cares more for the history of rocks, the order in which they were laid down, the conditions which gave them their peculiarities, and the evolution of living forms as shown by the succession of fossils, the following order of courses is suggested: 19, 1, 1a, 9, 16, 5, 18, 20, 22, 15, 4.

**PHYSIOGRAPHIC GEOLOGY, PHYSICAL GEOGRAPHY.**—If his interest lies more in the earth's surface, the origin of its topographic forms, the agencies which are transforming them, and the influence of these upon the welfare of plants, animals, and man, the following courses are advised, in order: 19, 23, 14, 10, 5, 1a, 11, 8, 20, 17, 24, 4. These courses will be of special interest to prospective teachers of physiography.

The attention of students who can devote but one or two semesters to the subject is directed to the following courses: For engineers, 3, 5, 13, 15; for agriculturists, 12, 14, 8, 11; for students in commerce, 3, or 23, 14, 8; for students in literature and science, 3, 1, 23, 1a, 10, 14, 8, 11, 22.

#### COURSES FOR UNDERGRADUATES

**I. DYNAMIC AND STRUCTURAL GEOLOGY.**—The agents and processes involved in the development of the earth's present features. Lectures; laboratory. I; (5). Professor ROLFE, Mr. FLEENER

*Prerequisite:* Chemistry I or an equivalent.



1a. HISTORICAL GEOLOGY.—The evolution of the earth and its life. Lectures; laboratory work, consisting largely of a study of a few of the more characteristic fossils from the various horizons. (Continuing course I and introducing courses 9 and 16.) *II*; (5).

Assistant Professor SAVAGE, Mr. THOMPSON

*Prerequisite:* Geology 1, 3, or 23.

2. ECONOMIC GEOLOGY.—The origin and manner of occurrence of minerals and rocks of economic importance, especially those found in North America. Lectures; laboratory. *II*; (3).

Professor BAYLEY

*Prerequisite:* Geology 5; 1 and 1a, or 3.

3. GENERAL GEOLOGY.—Mineralogy; dynamic, historic, and economic geology; minerals; rocks; contour maps; fossils. Recitations; laboratory. (For students who wish to devote but one semester to geology.) *I or II*; (5). *Daily, with occasional trips on Saturday.*

Professor ROLFE, Mr. FLEENER

4. THESIS COURSE.—Field or laboratory problems; complete reports under the direction of an instructor; maps, sections, and figures based on observations. *II*; (5).

5. MINERALOGY.—Petrography and economic geology; the most common ores and minerals of scientific importance; crystallography; the characteristics of about 125 of the most important minerals; blow pipe analysis. Lectures; laboratory. *I*; (5).

Professor BAYLEY, Mr. ROSS

*Prerequisite:* Chemistry 1, 2, 3.

5a. DETERMINATIVE MINERALOGY.—Laboratory: the determination of minerals. Lectures: the characteristics, origin, and transformation of minerals. *II*; (3).

Professor BAYLEY, Mr. ROSS

*Prerequisite:* Geology 5.

6. PHYSICAL AND OPTICAL MINERALOGY.—Petrography; physical and optical properties of minerals; the practical use of polarized light in identifying the rock-forming materials. *I*; (3).

Professor BAYLEY

*Prerequisite:* Geology 5.

7. PETROGRAPHY.—Rocks; their types; origin; classification; the types studied with hand specimen and thin section. Lectures; laboratory. *II*; (3).

Professor BAYLEY

*Prerequisite:* Geology 6.

8. GEOGRAPHY OF EUROPE.—The continent of Europe; physiographic features, climate, and natural resources; the influence of

physical conditions on present and historical development. *II*; (3).

Dr. RICH, Mr. HEITKAMP

*Prerequisite*: Geology 23, or 1 or 3 with 14.

9. PALEONTOLOGY.—Invertebrae fossils; their classification and relationships; identification of the fossils; the literature of the subject. Lectures; laboratory. *I*; (5).

Assistant Professor SAVAGE, Mr. THOMPSON

*Prerequisite*: Geology 1a; recommended: 1 year of botany or zoology.

10. INFLUENCES OF GEOGRAPHIC ENVIRONMENT.—The influence of geographic factors such as topography, climate, location, on the activities and habits of man—on his mode of life, his industries or means of gaining a livelihood, modes of communication; the bearing of these factors on historical movements and on the development and policies of nations. *II*; (3).

Dr. RICH, Mr. HEITKAMP

*Prerequisite*: Geology 23, or 1, or 3.

11. GEOGRAPHY OF NORTH AMERICA.—The continent of North America; physiography, climate, resources, peoples, and economic geography; the bearings of physiographic and climatic factors on present and past development. *I*; (3). Dr. RICH, Mr. HEITKAMP

*Prerequisite*: Geology 23, or 1 or 3 with 14.

12. GEOLOGY OF SOILS.—The origin of the various classes of soils; mineral compositions; physical characteristics; transformations. (Particularly valuable to students of agriculture and all those who are especially interested in plant growth.) *II*; (5).

Professor ROLFE, Mr. FLEENER

*Prerequisite*: Chemistry 1 or an equivalent.

13. ENGINEERING GEOLOGY.—(Planned especially to meet the needs of engineering students; open only to students in engineering and ceramics.) Lectures; laboratory. *II*; (5).

Professor BAYLEY, Mr. ROSS

14. METEOROLOGY.—The heating and cooling, pressure, circulation, and moisture of the atmosphere; storms, and storm and weather forecasting; rainfall, climate. (Course 14 should be taken by all those who intend to do more than the most elementary work in geography, and, with course 8, should be taken with Economics 26 by students of commerce.) Professor ROLFE, Mr. HEITKAMP

15. STRUCTURAL GEOLOGY.—The arrangement of the rocks which



form the earth's crust and their distribution on its surface; mountains; faults; folds; other diastrophic phenomena. *I*; (3).

Professor BAYLEY

*Prerequisite:* Geology 1a.

16. STRATIGRAPHY.—Classifications; rock formations; methods and criteria employed in correlation of the characteristic invertebrate faunas of the successive geologic formations and their distribution; the use of these in the interpretation of stratigraphy. *II*; (5).

Assistant Professor SAVAGE

*Prerequisite:* Geology 9.

[17. CONTINENTAL EVOLUTION.—The development of continents; the distribution of the strata of the successive geological systems; the character and variations of the sediments in each period with their faunas; the distribution of lands and seas, and their relative altitude in geologic ages. *I*; (5). Not given, 1913-14.

Assistant Professor SAVAGE

*Prerequisite:* Geology 1a or 11.]

[18. MESOZOIC AND TERTIARY PALEONTOLOGY.—The mesozoic and tertiary invertebrate fossil forms; the evolution of vertebrates during the same periods. (For students specializing in botany or zoology.) *II*; (5). Not given, 1913-14. Assistant Professor SAVAGE

*Prerequisite:* Geology 1a, 9; or 10 credits in botany or zoology.]

[19. FIELD GEOLOGY—INTRODUCTORY COURSE.—Field trip of two weeks, introductory to the courses in general geology and physiography. Including points in Indiana, Ohio, and the Wyandotte or Mammoth Cave, to illustrate the marked difference between the physiographic features of youthful and mature topography and of glaciated and non-glaciated areas; collection of fossils from the different rock exposures; their use in determining the age of strata. (Expenses about \$35.00.) Credit given on completion of a semester course in geology and on submission of written report on the observations and collections made during the trip. *I*; (2). Not given, 1913-14.

Assistant Professor SAVAGE]

20. FIELD GEOLOGY.—The field determination of physical features and rock formations, with mapping and description, of a selected area. (A short field course.)

Assistant Professor SAVAGE

23. PHYSIOGRAPHY.—The earth's surface: its salient features, their origin, modification, and interrelationships; agencies and processes of change; meteorology; oceanography. (A general intro-

ductory course in physiography; should precede all further work in geography or physiography.) *I*; (5). Dr. RICH, Mr. HEITKAMP

21. GEOLOGY OF COAL.—The origin of coal; age, distribution and stratigraphy of the coal deposits of North America, with special emphasis on the Illinois or Eastern Interior basin. *I*; (2).

Assistant Professor SAVAGE

*Prerequisite:* Geology 13 or an equivalent.

22. ORGANIC EVOLUTION.—The evolution of plant and animal forms as indicated by the fossil record. *II*; (3).

Assistant Professor SAVAGE

*Prerequisite:* Geology 1a, or one semester of zoology or botany.

24. GEOMORPHOLOGY.—Earth features and the influence of climatic conditions, character and attitude of the rocks, and diastrophic movements on surface forms. (An introduction to the literature of physiography; should be taken by all who intend to teach or to specialize in geography or geology.) *II*; (5). Dr. RICH

*Prerequisite:* Geology 1 or 3 or 23.

#### COURSES FOR GRADUATES

The first prerequisite for graduate work in Geology is the equivalent of the complete undergraduate offerings in that branch of the subject in which specialization is desired. Those who wish to specialize in paleontology should have, in addition, at least an elementary knowledge of systematic zoology; those who wish physical geography should have a knowledge of general physics and chemistry; and those who expect to pursue work in petrography and economic geology should be well grounded in general physics, inorganic chemistry and the elements of physical chemistry. All graduate students should be sufficiently acquainted with German and French to be able to read the journals printed in these languages.

101. ADVANCED CRYSTALLOGRAPHY. Methods used in measuring, prospecting, and calculating crystal forms in, and determining the physical properties of crystalized bodies. *Three to five times a week; I, II; (1 unit).*

Professor BAYLEY

102. PETROGRAPHY.—The igneous and fragmental rocks; identification of types, classification, and relationships. Lectures; laboratory. *Twice a week; I, II; (1 unit).*

Professor BAYLEY

103. SCHISTS.—The crystalline schists and other metamorphic rocks; processes of metamorphism. Lectures; laboratory. *Twice a week; I, II; (1 unit).*

Professor BAYLEY



105. INVERTEBRATE PALEONTOLOGY.—A group of invertebrate fossils, or the fossils of a special geological system; their geographic distribution and geological range with reference to stratigraphy. Largely individual work. *One to three times a week; I, II; (1 unit).* Assistant Professor SAVAGE.

106. AREAL AND STRATIGRAPHIC GEOLOGY.—The geology and paleontology of a selected area in Illinois. A carefully prepared report on the geology of the region, based on the data collected in the field, is required. *One to three times a week; I, II; (1 to 2 units).*

Assistant Professor SAVAGE

107. AREAL AND STRUCTURAL GEOLOGY.—Individual work on some area exhibiting important structural or economic features. *Once a week; I, II; (1 to 2 units).* Professor BAYLEY

124. ADVANCED PHYSIOGRAPHY.—Individual work on field problems; literature of physiography and geomorphology. *One to three times a week; I, II; (1 unit).* Dr. RICH

## GERMANIC LANGUAGES AND LITERATURE

(Including SCANDINAVIAN)

JULIUS GOEBEL, Ph.D., *Professor*

OTTO EDUARD LESSING, Ph.D., *Professor*

GEORGE TOBIAS FLOM, Ph.D., *Associate Professor, Scandinavian*

GEORGE HENRY MEYER, A.M., *Assistant Professor*

NEIL CONWELL BROOKS, Ph.D., *Assistant Professor*

\*LEONARD BLOOMFIELD, Ph.D., *Assistant Professor*

CHARLES MARSHALL POOR, Ph.D., *Instructor*

CHARLES ALLYN WILLIAMS, Ph.D., *Instructor*

ARMIN HAJAMAN KOLLER, Ph.D., *Instructor*

PHILIP STEPHAN BARTO, Ph.D., *Instructor*

ALEXANDER GREEN, Ph.D., *Instructor*

FELIX EMIL HELD, A.M., *Assistant*

ADOLPH EDUARD ZUCKER, A.M., *Assistant*

GEORGE WASHINGTON SPINDLER, A.M., *Assistant*

## GERMAN

### *Honors*

Candidates for honors in German must offer:

1. A minor of at least 12 hours in some other language; if this be English it must be exclusive of English 1 and work in rhetoric; if it be French or Spanish it must be exclusive of the first year's work.

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\*On leave.

2. A minor of at least 12 hours in any one of the other humanities, provided that the courses chosen contribute in a reasonable degree to the student's knowledge of European civilization. In order to be sure that the work offered will be accepted as fulfilling this general purpose, students are urged to consult with the department in planning their work in their minor subjects.

3. A general knowledge of European history, such as is gained from History 1, or an equivalent course.

4. An acceptable thesis; it may be one written in connection with some course.

#### FIRST-YEAR COURSES

1. ELEMENTARY COURSE.—Grammar and easy reading. *I*; (4). Assistant Professor MEYER, Assistant Professor BROOKS, Dr. POOR, Dr. WILLIAMS, Dr. BARTO, Dr. GREEN, Mr. ZUCKER, Mr. SPINDLER

2. NARRATIVE AND DESCRIPTIVE PROSE.—Grammar and reading. *I*; (4). Dr. KOLLER, Mr. ZUCKER, Mr. SPINDLER  
*Prerequisite*: One year of high school German or German S 1.

3. NARRATIVE AND DESCRIPTIVE PROSE.—Grammar and reading. (Continuation of German 1.) *II*; (4).

Assistant Professor MEYER, Assistant Professor BROOKS, Dr. POOR, Dr. KOLLER, Dr. BARTO, Dr. GREEN, Mr. ZUCKER, Mr. SPINDLER.

*Prerequisite*: German 1.

#### SECOND-YEAR COURSES

4. DESCRIPTIVE AND HISTORICAL PROSE.—Selections from standard prose writers; sight reading; prose composition. *I*; (4).

Dr. POOR, Dr. WILLIAMS, Dr. KOLLER, Dr. BARTO, Dr. GREEN, Mr. HELD, Mr. ZUCKER, Mr. SPINDLER

*Prerequisite*: German 1 and 3, or one year of high school German and German 2, or two years of high school German.

NOTE.—Three sections of German 4 will be offered in the second semester for those taking German 2 the first semester.

5. INTRODUCTION TO THE CLASSICS.—Schiller's *Jungfrau von Orleans*; Goethe's *Hermann und Dorothea*; or others of the classics. Prose composition. (Two sections of German 5 will be offered in the first semester.) *II*; (4).

Dr. POOR, Dr. WILLIAMS, Dr. KOLLER, Dr. BARTO, Dr. GREEN, Mr. HELD

*Prerequisite*: German 4, or three years of high school German.



6. SCIENTIFIC PROSE.—The rapid reading of works of a general scientific character. *II*; (4). Dr. KOLLER, Dr. BARTO, Mr. HELD  
*Prerequisite*: German 4.

## THIRD-YEAR COURSES

Not more than ten hours of these courses may be counted towards a major without the approval of the head of the department.

7. MODERN FICTION.—(Intended primarily for students who take German 5 in the first semester; not open to those who have had any work more advanced than German 5.) Two sections. *II*; (3).  
 Dr. WILLIAMS, Dr. GREEN

*Prerequisite*: German 5, or equivalent.

10. INTRODUCTORY GOETHE COURSE.—Reading of works illustrating different periods in Goethe's development: *Götz von Berlichingen*; *Egmont*; *Iphigenie auf Tauris*; selections from *Dichtung und Wahrheit*. *II*; (3).

Assistant Professor MEYER, Assistant Professor BROOKS

*Prerequisite*: German 14, or 24, or 16.

14. INTRODUCTORY SCHILLER COURSE.—Reading of works illustrating different periods in Schiller's development: Lyrics and ballads; *Kabale und Liebe*; *Braut von Messina*. *I*; (3).

Assistant Professor BROOKS

*Prerequisite*: German 5 or its equivalent.

16. ELEMENTARY PROSE COMPOSITION.—Two sections. *I*; (2).

Assistant Professor BROOKS, Dr. WILLIAMS, Mr. HELD

*Prerequisite*: German 5, or equivalent.

NOTE.—One section of German 16 is offered in the second semester.

17. INTERMEDIATE PROSE COMPOSITION.—(Two sections.) *II*; (3).  
 Dr. WILLIAMS, Mr. HELD

*Prerequisite*: German 16.

24. MODERN DRAMA.—Rapid reading of dramas by Grillparzer, Hebbel, Wildenbruch, and others. *I*; (3). Dr. POOR

*Prerequisite*: German 5 or its equivalent.

28. GERMAN LYRICS.—*First semester*: The chief lyric poets of the classical period. *Second semester*: The chief lyric poets of the nineteenth century. The form, development, and different types of the lyric. (Each semester may be taken separately, altho students are not advised to take the second without the first. Not open to freshmen.) *I, II*; (2). Assistant Professor MEYER

*Prerequisite*: For first semester, German 5 or equivalent; for second semester, German 14, or 16, or 24, or first semester of 28.

## PRIMARILY FOURTH-YEAR COURSES

8. SCHILLER.—The life of Schiller; *Wallenstein* and other selections. *II*; (3). Professor LESSING

*Prerequisite*: Three years of German.

9a. GOETHE'S FAUST.—The Faust legend and early Faust books and plays; the genesis of Goethe's *Faust*; reading of both parts. *I, II*; (2). Professor GOEBEL

[9b. GOETHE AND SCHILLER.—Interpretation of Goethe's poems. Goethe's *Tasso*; Schiller's *Ueber naive und sentimentalische Dichtung*. *I, II*; (2). Not given, 1913-14. Professor GOEBEL]

11. GERMAN LITERATURE AFTER THE REFORMATION.—Lectures; recitations; reports on assigned collateral reading. *II*; (3).

Professor LESSING

*Prerequisite*: German 26.

25. TEACHER'S COURSE.—Discussion of methods; examination of text-books. (Open to seniors and special students who have 20 hours' credit in German.) *II*; (2). Assistant Professor BROOKS

*Prerequisite*: First semester of German 29 or equivalent; completion of or registration in Education 1 or equivalent.

26. GERMAN LITERATURE BEFORE THE REFORMATION.—Lectures; recitations; reports on assigned reading. *I*; (3).

Professor LESSING

*Prerequisite*: German 10, or 24, or 28.

[27. LESSING.—The life of Lessing; *Nathan der Weise*; *Emilia Galotti*, and other selections. Not given, 1913-14. *I*; (3).

Professor LESSING

*Prerequisite*: Three years of German.]

29. ADVANCED PROSE COMPOSITION.—Themes on Germany and German life, based on suitable reading, discussed in German. *I, II*; (3). Dr. KOLLER

*Prerequisite*: German 17.

30. THESIS COURSE.—(Intended primarily for candidates for honors in German, but open to other seniors.) *I, II*; (1 or 2).

Professor GOEBEL, Professor LESSING, Assistant Professor MEYER, Assistant Professor BROOKS

31. MIDDLE HIGH GERMAN.—*I*; (2). Professor GOEBEL

*Prerequisite*: Senior or graduate standing; at least three years of German.

32. HISTORY OF GERMAN CIVILIZATION.—Readings; lectures; discussions. *I*; (3). Professor LESSING

*Prerequisite*: Three years of German.



Courses 9, 11, 29, and 31 are especially recommended to all candidates for graduate scholarships in German; these same courses, together with Course 25, are recommended to seniors who expect to teach German.

#### COURSES FOR GRADUATES

Students desiring to take German as a major are expected to have finished successfully a four years' course of undergraduate work in German, corresponding to the four years' course in German at this University. They are expected to be familiar with the principal works of the writers of the classical and modern periods of German literature, to show a general knowledge of the history of German literature, and to be able to follow lectures in the German language.

Of collateral subjects, a reading knowledge of Latin and French is required. It is desirable that candidates for the degree of Ph.D. have some knowledge of Greek. All students are expected to have had a course in German history.

101. SEMINAR IN GERMANIC PHILOLOGY.—The Life and Works of Friedrich Holderlin. Training in original research; results of value may be published in the *Journal of English and Germanic Philology*. *Once a week; I, II; (1 unit)*. Professor GOEBEL

103. INTRODUCTION TO THE HISTORICAL STUDY OF THE GERMANIC LANGUAGES.—History of German Philology; comparative grammar of the Old Germanic dialects. Lectures; discussions of special topics. *Twice a week; II; (1 unit)*. Professor GOEBEL

104. GOTHIC.—Grammar and literature. *Twice a week; I; (1 unit)*. Professor GOEBEL

105. OLD HIGH GERMAN.—Grammar and interpretation of the oldest literary documents. *Three times a week; II; (1 unit)*. Dr. GREEN

[109. GOETHE'S AND SCHILLER'S PHILOSOPHY.—*Twice a week; I, II*. Not given, 1913-14. Professor GOEBEL]

110. EARLY GERMAN DRAMA.—German drama up to the Reformation; medieval religious drama; Shrovetide plays; beginnings of the humanistic drama. *Twice a week; I; (1 unit)*. Assistant Professor BROOKS

113. GERMAN LITERATURE OF THE FIFTEENTH AND SIXTEENTH CENTURIES.—Survey of the literature on the back-ground of the general history of the time; Luther and the reformation; master-

singers and folksong; the reformation drama; Hans Sachs; Brant; Fischart; the chap books, the English comedians. *Twice a week; II; (1 unit).* Assistant Professor BROOKS

115. HISTORY OF GERMAN LITERATURE FROM GOETHE'S DEATH TO THE PRESENT TIME.—*Twice a week; I, II; (1 unit).*

Professor LESSING

[116. MEDIEVAL GERMAN LITERATURE WITH REFERENCE TO THE POLITICAL, RELIGIOUS, AND SOCIAL HISTORY.—Research. *Twice a week; I.* Not given, 1913-14. Professor LESSING]

117. HISTORY OF GERMAN LITERATURE DURING THE EIGHTEENTH CENTURY. *Twice a week; I, II. (1 unit).* Professor GOEBEL

[118. THE GERMAN DRAMA SINCE SCHILLER.—Research. *Twice a week; I, II; (1 unit).* Not given, 1913-14. Professor LESSING]

119. THE GERMAN NOVEL.—Research. *Twice a week; I, II; (1 unit).* Professor LESSING

121. WALTHER VON DER VOGELWEIDE.—Lectures and interpretations. *Twice a week; II; (1 unit).* Professor GOEBEL

### SCANDINAVIAN

#### UNDERGRADUATE COURSES, NOT OPEN TO FRESHMEN

[1. ELEMENTARY NORWEGIAN.—Grammar, reading, and introduction to the literature. *I, II; (3).* Not given in 1913-1914.

Associate Professor FLOM]

[2. ELEMENTARY SWEDISH.—Grammar and reading of easy prose; Selma Lagerlöf's *En Herrgardssägen*, and Runeberg's *Fanrik Stals Sägner*. *I; (2).* Not given in 1913-14.

Associate Professor FLOM]

3. ADVANCED NORWEGIAN.—Ibsen's *Brand*, *Peer Gynt*, and Björnson's *Arnljot Gelline*. Critical study. *II; (2).*

Associate Professor FLOM

*Prerequisite:* Course I or the equivalent.

[4. ESAIAS TEGNER.—Tegner's *Frithjofs Saga*; genesis, development, and influence. Lectures on Swedish romanticism and "The Gothic School." *II; (2).* Not given in 1913-14.

Associate Professor FLOM]

[5. HENRIK IBSEN.—Lectures and interpretation of selected works. Early influences; development of Ibsen's view of life. *II; (2).* Not given in 1913-14. Associate Professor FLOM]



6. IBSEN'S SOCIAL DRAMAS.—Lectures; interpretation of four of the social dramas; Ibsen's technique. Archer's translation is used. *II; (2)*. Associate Professor FLOM

*Prerequisite:* Junior standing.

12. NORSE MYTHOLOGY.—Primitive religion; the religious belief of the Norseman in pre-Christian times; interpretation of the principal myths; theogony, cosmogony, and the myth of the end of the world. *I; (2)*. Associate Professor FLOM

*Prerequisite:* Junior standing.

#### ADVANCED COURSE FOR UNDERGRADUATES AND GRADUATES

[11. SURVEY OF THE HISTORY OF THE SWEDISH LANGUAGE AND LITERATURE.—Lectures. Not given in 1913-14.

Associate Professor FLOM]

#### COURSES FOR GRADUATES

Preparation for graduate work in the Scandinavian languages or literature must include a reading knowledge of one of the Scandinavian languages and systematic work in the undergraduate courses in Scandinavian or their equivalent. Any graduate student in language may, however, be admitted to the purely philological courses.

101. OLD NORSE.—Introduction to the language as a member of the Germanic group. Reading of the *Volsungasaga* with selections from the King's Sagas. *I, II; (1 unit)*. Associate Professor FLOM

102. OLD DANISH.—Introduction to the language. Bertelsen's *Grammar and Reader*. *Twice a week; I; (1 unit)*.

Associate Professor FLOM

[103. OLD SWEDISH.—Introduction to the language. Noreen's *Altschwedische Grammatik* and *Lesebuch*. *(1 unit)*. Not given, 1913-14.

Associate Professor FLOM]

110. ADVANCED OLD NORSE.—Mythical lays of the *Elder Edda*. *Twice a week; I; (1 unit)*.

Associate Professor FLOM

[130. THE RUNIC INSCRIPTIONS.—Lectures on the runes and interpretation of the Germanic and Scandinavian inscriptions; Germanic grammar. *Twice a week; II; (1 unit)*. Not given, 1913-14.

Associate Professor FLOM]

150. RESEARCH.—Special problems. *Twice a week; I; (1 unit)*.

Associate Professor FLOM

#### GREEK

(See CLASSICS.)

## HISTORY

EVARTS BOUTELL GREENE, Ph.D., *Professor*

CLARENCE WALWORTH ALVORD, Ph.D., *Professor*

LAURENCE MARCELLUS LARSON, Ph.D., *Professor*

ALBERT HOWE LYBYER, Ph.D., *Associate Professor*

WILLIAM SPENCE ROBERTSON, Ph.D., *Assistant Professor*

FREDERIC DUNCALF, Ph.D., *Assistant Professor*

SOLON JUSTUS BUCK., Ph.D., *Associate*

ARTHUR CHARLES COLE, Ph.D., *Instructor*

ELIZABETH PARNHAM BRUSH, A.M., *Assistant*

Students who expect to teach history or to make that subject a major are advised to take History I during their freshman year. For the sophomore year History 3, II, and 23 are recommended. During the junior and senior years students may select courses from groups B and C, in accordance with their individual tastes and interests. For those who expect to teach in secondary schools some work in ancient history is desirable. (History 5 and 6).

The importance of thoro linguistic training is also emphasized, especially in Latin, French, and German.

*Honors*

Candidates for honors in history must offer:

1. Not less than 24 hours in this subject, including History I and 3, at least 3 hours of English history, and at least 6 hours in Group C.

2. Two minor subjects aggregating at least 24 hours, approved by the department, including in each case some advanced work. The minors must be selected from the following list: Economics; political science; philosophy, including a course in logic and one in the history of philosophy (one course in education or psychology may be accepted as a part of the requirement in philosophy.); English literature; the classics. Economics or political science must be offered as one of the minor subjects. The ability to read simple prose in one foreign language is ordinarily expected of candidates in history, and students who have pursued the study of Romance languages or Germanic languages so far as to include courses in the history of literature may count one of these subjects as a minor.



## A. COURSES OPEN TO FRESHMEN

(Seniors taking these courses may receive half credit only.)

1. CONTINENTAL EUROPEAN HISTORY.—Europe from the fourth century to the present time. (The work of neither semester may be taken separately without special permission.) *I, II*; (4).

Associate Professor LYBYER, Assistant Professor DUNCALF, Miss BRUSH

11. HISTORY OF ENGLAND TO 1589.—This course may be combined with English economic history, (Economics 7), or Continental European history (History 1). *II*; (3). Professor LARSON

## B. UNDERGRADUATE COURSES NOT OPEN TO FRESHMEN

3. HISTORY OF THE UNITED STATES.—*First Semester*: The Colonial era; the Revolution; genesis of the federal constitution. *Second semester*: The United States under the constitution. (The work of either semester may be taken separately.) *I, II*; (3).

Professor GREENE, Assistant Professor ROBERTSON, Dr. COLE  
*Prerequisite*: One year of college work.

\*5. HISTORY OF GREECE.—*I*; (3). Associate Professor OLDFATHER

\*6. HISTORY OF ROME.—*II*; (3). Assistant Professor CANTER

[7. THE REVOLUTIONARY AND NAPOLEONIC ERA.—*I*; (3). Not given, 1913-14.

*Prerequisite*: History 1.]

17. THE HISTORY OF ILLINOIS.—The political, economic, and social development of a typical commonwealth in the Middle West, considered in its relation to the general course of American history. *II*; (2).

Dr. BUCK

*Prerequisite*: History 3 or junior standing in any college of the University.

18. THE TEACHING OF HISTORY.—Preparation of students for the practical problems of historical teaching in secondary schools. *II*; (2).

Professor LARSON, Dr. COLE, and other members of the department

*Prerequisite*: History 1, 3 or their equivalent; senior standing.

23. HISTORY OF MODERN ENGLAND.—(A continuation of History 11, following the same general plan; but emphasizing the colonial and imperial phases of English history.) *I*; (3). Dr. COLE

*Prerequisite*: History 1 or 11.

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\*Courses 5 and 6 are also listed as Greek 20 and Latin 19 respectively.

29. THE FAR EAST.—The contact of Western Christendom with the Far East from the Portuguese establishments of the sixteenth century to the Chinese Revolution of 1911, with special reference to China and Japan. *II*; (2). Professor GREENE

*Prerequisite:* For students majoring in history, economics, or political science, at least junior standing; for all others, junior standing including one year of college work in history.

#### C. COURSES FOR GRADUATES AND QUALIFIED UNDERGRADUATES

(At least junior standing required. The ability to use French and German is desirable in all of these courses and is essential in some of them.)

4. THE CONSTITUTIONAL HISTORY OF ENGLAND.—*First semester:* institutional origins; *second semester:* modern constitutional practise. (For students who wish to specialize in English history, political science, or law.) *I, II*; (3). Professor LARSON

*Prerequisite:* One year of college history.

8. ENGLISH CIVILIZATION IN THE MIDDLE AGES.—The religious, economic, and intellectual development of medieval society. *II*; (2). Professor LARSON

*Prerequisite:* History 1.

9. EUROPEAN SOCIETY IN THE LATER MIDDLE AGES AND THE RENAISSANCE.—The transition from medieval to modern ideals. (Continuation of course 19; either may be taken separately.) *II*; (3). Assistant Professor DUNCALF

*Prerequisite:* History 1.

10. THE DEVELOPMENT OF AMERICAN SOCIETY IN THE EIGHTEENTH CENTURY.—An introduction to the study of the American Revolution. *II*; (4). Professor GREENE

*Prerequisite:* History 3.

[12. HISTORY OF GERMANY.—Settlement; eastern expansion; development of German cities; the Reformation; rise and development of Brandenburg-Prussia since 1640; *I, II*; (2). Not given, 1913-14.]

14. THE MAKING OF THE FEDERAL CONSTITUTION.—The events from 1783 to 1789 which resulted in the framing and ratification of the federal constitution of 1787; the contemporary arguments for and against the ratification of the Constitution. *II*; (3).

Professor GREENE

*Prerequisite:* History 3 or Political Science 1 and 3.



15. THE CIVIL WAR AND THE RECONSTRUCTION IN THE UNITED STATES.—II; (3). Dr. COLE

*Prerequisite:* History 3.

16. THE HISTORY OF THE EXPLORATION AND COLONIZATION OF THE WEST.—*First semester:* The Mississippi Valley from the earliest European explorations to the close of the War of 1812; *second semester:* the Mississippi Valley since 1815, and the progress of western expansion to the Pacific. (The second semester may be taken separately.) I, II; (2). Professor ALVORD

*Prerequisite:* History 3.

19. MEDIEVAL SOCIETY WITH SPECIAL REFERENCE TO CONTINENTAL EUROPE IN THE ELEVENTH AND TWELFTH CENTURIES.—This course may be advantageously combined with History 8, (English Civilization in the Middle Ages). I; (2). Assistant Professor DUNCALF

*Prerequisite:* History 1.

20. EUROPE FROM THE PERIOD OF THE NAPOLEONIC EMPIRE TO THE PRESENT TIME.—Political movements and the development of civilization as the historical basis for an understanding of contemporary European life. *First semester:* The nineteenth century to the formation of the German Empire in 1871; *Second semester:* Europe since 1871. (Either semester may be taken separately.) I, II; (3).

Associate Professor LYBYER

*Prerequisite:* At least one year of college work in history or political science, and at least junior standing.

21. THE HISTORY OF THE UNITED STATES SINCE THE CIVIL WAR.—Historical introduction to contemporary American politics. I; (3). Assistant Professor ROBERTSON

*Prerequisite:* History 3.

26. THE HISTORY OF THE LATIN-AMERICAN COLONIES.—The political, economic, social, and intellectual life of Spain during the period of discovery; the exploration, settlement, and civilization of Spanish-America and the Philippines; the exploration and colonization of Brazil. I; (3). Assistant Professor ROBERTSON

*Prerequisite:* History 1 or 3.

27. THE HISTORY OF LATIN-AMERICA FROM THE WARS OF INDEPENDENCE TO THE PRESENT TIME.—The national history of the leading Latin-American states; political parties; existing governments; relations with Europe and the United States. The old regime in Texas, Mexico, and California. II; (3).

Assistant Professor ROBERTSON

*Prerequisite:* History 3.

28. THESIS.—(For candidates for honors and for other seniors who wish special training in investigation.) *I, II; (2).*

Assistant Professor ROBERTSON and other members of the department

#### COURSES FOR GRADUATES

A student entering upon graduate work should have had at least the equivalent of the introductory college courses in European and American history. All students of history should have a reading knowledge of German and French; for medieval history some knowledge of Latin is indispensable, and in certain fields of American history Spanish is needed.

Graduate courses in history at the University of Illinois are of three kinds; 1. Instruction in methodology, historiography, and bibliography. This work (in course 103) is required of all graduate students in history during their first year. 2. Seminar courses for the study of special fields with a view primarily to training in the methods of historical criticism and research. 3. Courses for information and guidance in general reading.

Opportunities for research are offered in the following fields: Medieval history; English history with emphasis upon medieval institutions; modern European history with special reference to the nineteenth century; American history with special reference to institutions, colonial society, western development, and the period of sectional conflict, 1820-65; the history of Latin America.

ILLINOIS SURVEY.—Students of history have an opportunity to pursue research in western history in connection with the Illinois Survey, an organization for the purpose of carrying on systematic studies in the history of Illinois.

Attention is also called to the fact that the University of Illinois has for some time cooperated with the Trustees of the State Historical Library in the gathering and editing of historical documents. As a result of this relation instructors and graduate students in the department have contributed to the publications of these state organizations and have been given useful training in the study of printed and manuscript material.

The History Club, consisting of instructors and graduate students in the department, meets once a month. The program is devoted to reviews of current progress in historical work and informal discussion of historical topics.

101. SEMINAR IN AMERICAN HISTORY.—Bibliography; practise



in the solution of typical problems; reports on the progress of individual investigations by instructors and students. *Two hours, once a week; I, II.\**

Professor GREENE and others

Students interested in the investigation of particular topics, whether with a view to writing theses or otherwise, may register in this course and will be advised by members of the department as follows:

On American history before 1789 and problems of church and state. Professor GREENE

On American history after 1789 and Latin-American history.

Assistant Professor ROBERTSON, Dr. COLE

On the history of the West. Professor ALVORD, Dr. BUCK

102. STUDIES IN ENGLISH HISTORY.—*Twice a week; I, II.*

Professor LARSON

103. HISTORICAL BIBLIOGRAPHY AND CRITICISM.—Selected problems in various fields. Required of all candidates for an advanced degree in history who do not present evidence of similar training elsewhere. *Twice a week; I, II.*

Associate Professor LYBYER and others

104. RESEARCH IN EUROPEAN HISTORY.—Competent students will be guided in the investigation of topics in medieval and modern history. *I, II.*

Associate Professor LYBER, Assistant Professor DUNCALF

105. THE HISTORY OF WESTERN EXPANSION, 1763-1818.—Problems in the interpretation of western history. Lectures and readings. *Once a week; I, II.*

Professor ALVORD

III. SPANISH-AMERICAN RELATIONS.—The relations of the Latin-American States with Europe and the United States. Selected topics. *Once a week; I, II.* Assistant Professor ROBERTSON

## HORTICULTURE

JOSEPH CULLEN BLAIR, M.S., *Professor, Pomology*

JOHN WILLIAM LLOYD, M.S., *Professor, Olericulture*

CHARLES SPENCER CRANDALL, M.S., *Professor, Pomology*

CHARLES MULFORD ROBINSON, A.M., *Professor, Civic Design*

HERMAN BERNARD DORNER, M.S., *Assistant Professor, Floriculture*

BETHEL STEWART PICKETT, M.S., *Assistant Professor, Pomology*

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\*The unit values of graduate courses in history are fixed upon registration, after conference with the instructors in charge of the courses.

WILHELM MILLER, Ph.D., *Assistant Professor, Landscape Horticulture*

RALPH RODNEY ROOT, M.L.A., *Assistant Professor, Landscape Gardening*

ERNEST WINFIELD BAILEY, M.S., *Associate, Pomology*

OSCAR S WATKINS, B.S., *Associate, Horticultural Chemistry*

CHARLES ELMER DURST, M.S., *Associate, Olericulture*

\*ARNO HERBERT NEHRLING, *Associate, Floriculture*

SIMEON JAMES BOLE, A. M., *Associate, Pomology*

JOHN JOSEPH GARDNER, B.S., *Instructor, Pomology*

LAWRENCE EARL FOGLESONG, B.S., *Instructor, Landscape Horticulture*

HORACE WHITTIER PEASLEE, B. Arch., *Instructor, Landscape Design*

FRANK A CUSHING SMITH, B.S., *Instructor, Landscape Design*

CHARLES BOVETT SAYRE, B.S., *Instructor, Olericulture*

ROBERT WILLIAM HOFFMAN, B.S., *Instructor, Landscape Gardening*

ARTHUR SAMUEL COLBY, B.S., *Assistant, Pomology*

FRANZ AUGUST AUST, M.S., *Assistant, Landscape Design*

CHARLES CHRISTIAN REES, *Assistant, Pathology*

#### COURSES FOR UNDERGRADUATES

Floriculture: Horticulture 4, 15a, 15b, 19a, 19b, 30, 31, 32, 35

Forestry: Horticulture 9

General Horticulture: Horticulture 1a, 1b, 5, 6, 7, 11, 12

Landscape Gardening: Horticulture 10a, 10b, 23a, 23b, 24a, 24b, 25a, 25b, 26a, 26b, 27a, 27b, 28, 29a, 29b, 36, 37a, 37b, 38

Olericulture: Horticulture 3, 20, 34

Pomology: Horticulture 2, 8, 17, 18, 33

1a. ELEMENTS OF HORTICULTURE.—Fruit growing, vegetable gardening and ornamental planting, with special reference to the farm home. (Required of all freshmen in the general course in Agriculture.) Text-book work; assigned readings; practical exercises. 1; (2). Professor LLOYD, Mr. GARDNER, Mr. BOLE, Mr. COLBY

1b. ELEMENTS OF HORTICULTURE.—(Continuation of 1a. Required of all freshmen in the general course in Agriculture.) 11; (2). Professor LLOYD, Mr. GARDNER, Mr. BOLE, Mr. COLBY

2. SMALL FRUITS AND GRAPES.—The strawberry, raspberry, blackberry, dewberry, currant, gooseberry, grape. History; extent

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\*Resigned February 1, 1914.



of cultivation; soil; location; fertilizers; propagation; planting; tillage; pruning; insect enemies; diseases; varieties; harvesting; marketing. Lectures; reference readings. *II*; (2).

Assistant Professor PICKETT, Mr. BOLE

*Prerequisite:* Horticulture 1a and 1b or their equivalents, 5.

3. VEGETABLE GARDENING.—Cultural requirements of each of the common vegetables. Lectures; text book; one practical exercise a week. *II*; (3).

Professor LLOYD, Mr. DURST, Mr. SAYRE

*Prerequisite:* Horticulture 1a and 1b or their equivalents.

4. PLANT HOUSES.—Construction, cost, and maintenance; heating; ventilating. *I*; (3).

Assistant Professor DORNER

5. PLANT PROPAGATION.—Grafts; buds; layers; cuttings; seeds. Lectures; laboratory; quizzes. *II*; (5).

Assistant Professor DORNER

6. NURSERY METHODS.—Some details of nursery management and their relation to horticulture in general. Lectures; reference readings. *II*; (2).

Assistant Professor PICKETT, Mr. BAILEY

*Prerequisite:* Horticulture 5; Entomology 4.

7. SPRAYING.—Materials, appliances, and methods employed in combating insects and fungous diseases. Lectures; reference readings; laboratory; field work. *II*; (3).

Professor LLOYD, Mr. WATKINS

*Prerequisite:* Horticulture 1a and 1b or their equivalents; Chemistry 1; Entomology 4.

8. ORCHARDING.—Pomaceous, drupaceous, and nut fruits; management of large commercial orchards; harvesting; grading; packing; storing; marketing. *I*; (5).

Professor CRANDALL, Assistant Professor PICKETT, Mr. BAILEY

*Prerequisite:* Horticulture 1a and 1b or their equivalents, 5; Botany 1; Entomology 4.

[9. FORESTRY.—Forest trees; uses; distribution; artificial production; relations of forest and climate; forestry legislation and economy. *II*; (2). Not given, 1913-14.

*Prerequisite:* Botany 1, or an equivalent.]

10a. LANDSCAPE GARDENING (INTRODUCTORY COURSE).—Lectures; reference reading; plant studies. Two lectures and three hours drawing or field trip. (Open to all students.) *I*; (3).

Assistant Professor ROOT, Mr. HOFFMAN

10b. LANDSCAPE DESIGN (ELEMENTARY COURSE).—Drafting; field trips; assigned readings; reports; occasional lectures. Nine hours' drafting per week. *I* or *II*; (3).

Assistant Professor ROOT, Mr. SMITH

*Prerequisite:* One year of college work.

11. CULTIVATED PLANTS.—The relationship and classification of certain economic and ornamental plants of the temperate zone; identification of species; examination of living plants and herbarium specimens. Lectures; assigned readings. *I*; (2).

Professor BLAIR, Professor CRANDALL

*Prerequisite:* Botany 2.

12. EVOLUTION OF HORTICULTURAL PLANTS.—History, botanical classification, and geographical distribution of cultivated plants; modification under culture; theoretical causes and observed factors that influence variation, particularly food supply, climate, and cross-fertilization. *I*; (3).

Professor CRANDALL

*Prerequisite:* Two years of university work, including Horticulture 8 and Botany 2.

15a. PLANT GROWING.—Preparation of soils for greenhouse crops; fertilizers; potting and shifting plants; watering. Lectures; practical greenhouse work. *II*; (5).

Assistant Professor DORNER

*Prerequisite:* Horticulture 5; Botany 1.

15b. COMMERCIAL CROPS.—Greenhouse plants and cut flowers for wholesale and retail markets; the care and marketing of the crops. Lectures; greenhouse work. *I*; (5).

Assistant Professor DORNER, Mr. NEHRLING

*Prerequisite:* Horticulture 15a.

17. COMMERCIAL FRUIT CULTURE.—Practical work in houses and fruit plantations. (For students specializing in horticulture.) *I*; (5). Professor CRANDALL, Assistant Professor PICKETT, Mr. BAILEY

*Prerequisite:* Horticulture 2, 8.

18. EXPERIMENTAL HORTICULTURE.—Methods and difficulties in horticultural investigations; the planning of experiments; recording and interpretation of results. (For advanced students preparing for experiment station work.) *II*; (5).

Professor BLAIR, Assistant Professor PICKETT, Mr. WATKINS

*Prerequisite:* Twenty hours' work in horticulture.

19a. AMATEUR FLORICULTURE.—Window gardening; growing of flowers upon the home grounds; containers; potting soils; ferti-



lizers; preparation and planting of flower beds; propagation and culture of plants suitable for window and garden. *I*; (1).

Mr. NEHRLING

19b. AMATEUR FLORICULTURE.—(Continuation of 19a.) *II*; (1).

Assistant Professor DORNER

20. MARKET GARDENING.—Growing and handling vegetables for market. Practical exercises; reference readings. *II*; (3).

Professor LLOYD, Mr. DURST, Mr. SAYRE

*Prerequisite*: Horticulture 3.

22. SPECIAL INVESTIGATION AND THESIS.—*I, II*; (5-10).

23a. LANDSCAPE DESIGN (SECOND COURSE).—Problems in landscape design, such as country estates, playgrounds, small parks, based on topographic surveys taken in the vicinity of the university. Nine hours' drafting. *I or II*; (3).

Assistant Professor ROOT, Mr. PEASLEE

*Prerequisite*: Architecture 33.

23b. LANDSCAPE DESIGN.—(Continuation of 23a.) Nine hours' drafting. *I or II*; (3). Assistant Professor ROOT, Mr. PEASLEE

*Prerequisite*: Horticulture 23a.

24a. TREES AND SHRUBS.—Plant material important to landscape gardening; landscape value of each plant with respect to adaptability to the soil and situation and the use of the plant in design. Two lectures; one field trip. *II*; (3).

Assistant Professor ROOT, Mr. HOFFMAN

24b. TREES AND SHRUBS.—(Continuation of 24a.) Two lectures; one field trip. *I*; (3).

Assistant Professor ROOT, Mr. HOFFMAN

*Prerequisite*: Horticulture 24a.

25a. ADVANCED LANDSCAPE DESIGN.—The larger problems in landscape design such as country parks, cemeteries, country estates. Nine hours drafting. *I*; (3).

Assistant Professor ROOT, Mr. SMITH

*Prerequisite*: Horticulture 23b.

25b. ADVANCED LANDSCAPE DESIGN.—Real estate subdivisions and a complete set of plans, including a sketch plan, general plan, report, detailed study of architectural features, grading plans, planting plans, set of specifications, and estimate of cost. Nine hours' drafting. *II*; (3).

Professor ROBINSON, Assistant Professor ROOT, Mr. SMITH

*Prerequisite*: Horticulture 25a.

26a. PLANTING DESIGN.—Planting plans, based on the design problems in courses 10b, 23a and 23b. One conference and six hours' drafting. *II*; (3). Assistant Professor ROOT

*Prerequisite:* Horticulture 23a, 24b.

26b. PLANTING DESIGN.—Planting plans, based on the design problems in course 25. One conference and six hours' drafting. *I*; (3). Assistant Professor ROOT

*Prerequisite:* Horticulture 26a.

27a. LANDSCAPE PRACTISE.—Interpretation of topographic maps and their relation to landscape design; calculation of cut and fill; quantities of material; preparation of grading plans and working drawings. One lecture and six hours' drafting. *I*; (3).

Mr. SMITH

*Prerequisite:* Civil Engineering 22; Horticulture 10b.

27b. LANDSCAPE PRACTISE.—Construction; specifications and reports; engineering drawings based on the problems in courses 25 and 37. One lecture and six hours' drafting. *II*; (3). Mr. SMITH

*Prerequisite:* Horticulture 27a.

28. EXOTICS.—Temporary decorative plants used in landscape gardening. Lectures; planting plans; field trips. *II*; (1).

Assistant Professor ROOT.

*Prerequisite:* Horticulture 23b, 24b.

29a. GARDEN DESIGN.—The garden in its relation to the house; architectural harmony, utilization, topographic conditions, and planting for architectural or horticultural emphasis. Eight hours drafting and one lecture. *I*; (3).

Assistant Professor ROOT, Mr. PEASLEE

*Prerequisite:* Architecture 32.

29b. GARDEN DESIGN.—The designing of public gardens and open spaces and their relation to garden design. Eight hours drafting; one lecture. *II*; (3).

Assistant Professor ROOT

*Prerequisite:* Horticulture 29a.

30. DECORATIVE AND BEDDING PLANTS.—Tropical and subtropical plants used in decorative work in the conservatory; tender plants used in out-door bedding: Lectures; practical greenhouse work. *II*; (5).

Assistant Professor DORNER

*Prerequisite:* Horticulture 15a.



31. GARDEN FLOWERS.—The propagation and growing of annuals, herbaceous perennials, bulbs, and shrubs for cut flowers and ornamental plantings. *I*; (3). Assistant Professor DORNER

*Prerequisite*: Horticulture 5; Botany 1.

32. FLORAL DECORATION.—Cut flowers and plants in decorative work; arrangement of flowers in baskets, designs and bouquets; table decoration; house decoration. (For students in floriculture.)

*II*; (3).

Assistant Professor DORNER

33. SYSTEMATIC POMOLOGY.—Description, nomenclature, and classification of native and subtropical fruits; critical descriptions and identification with special reference to relationships and classifications of varieties; judging and displaying fruits. *I*; (2).

Mr. BAILEY

*Prerequisite*: Horticulture 8.

34. VEGETABLES UNDER GLASS.—Practical training in the forcing of vegetables. *I*; (3). Professor LLOYD, Mr. DURST, Mr. SAYRE

*Prerequisite*: Horticulture 3, 15a.

35. PRIVATE CONSERVATORY WORK.—Types of plants for large conservatories; arrangement; care. *II*; (3).

Assistant Professor DORNER

*Prerequisite*: Horticulture 15a, 4.

36. DEVELOPMENT OF LANDSCAPE GARDENING.—History of landscape gardening from Egyptian to modern times; survey of literature. Lectures; reference readings; library sketches; reports. *II*; (2).

Assistant Professor ROOT

37a. CIVIC DESIGN.—The problem of town remodeling; remedial problems in town planning. Lectures; field trips; reports. *I*; (2).

Professor ROBINSON, Assistant Professor ROOT

*Prerequisite*: Horticulture 23b.

37b. CIVIC DESIGN.—Principles of town extension; preventative and preservative aspects of town planning. Lectures; reference readings; and text book. *II*; (3).

Professor ROBINSON, Assistant Professor ROOT

*Prerequisite*: Horticulture 37a.

38. FIELD PRACTISE IN LANDSCAPE GARDENING.—Practise in carrying out landscape plans in the field. Lectures; field work; reports. *I* or *II*; (2).

Assistant Professor ROOT, Mr. SMITH, Mr. HOFFMAN

*Prerequisite*: Horticulture 23b, 24b.

## COURSES FOR GRADUATES

At least two years of collegiate work in horticulture and allied subjects and specific preparation for the chosen topics are required for entrance upon major work in this department.

102. POMOLOGY.—Individual problems in the adaption, propagation, cultivation, or pruning of small fruits. Conferences. *II*; ( $\frac{1}{2}$  to 1 unit). Professor CRANDALL

103. OLERICULTURE.—Individual problems in the structure, cultural requirements, and improvement of vegetables. Conferences. *I, II*; (*1 to 2 units each semester; a student working part time and extending his study for the master's degree over two years may register for  $\frac{1}{2}$  to 1 unit for each of the four semesters*). Professor LLOYD

108. POMOLOGY.—Individual problems in the relationship, adaption, improvement, propagation, cultivation, pruning, protection, preservation, or marketing of orchard fruits. Conferences. *I, II*; (*1 to 2 units each semester; a student working part time and extending his study for the master's degree over two years may register for  $\frac{1}{2}$  to 1 unit for each of the four semesters*). Professor BLAIR, Professor CRANDALL

[109. FORESTRY.—Problems in general forestry and investigation of forest growths. Not given, 1913-14.]

## HOUSEHOLD SCIENCE

ISABEL BEVIER, Ph.M., *Professor and Director*  
 NELLIE ESTHER GOLDTHWAITE, Ph.D., *Assistant Professor*  
 HELENA MAUD PINCOMB, B.S., *Associate*  
 NINA BELLE CRIGLER, B.S., *Associate*  
 CORA EMELINE GRAY, M.S., *Associate*  
 RUTH WHEELER, Ph.D., *Associate*  
 LURENE SEYMOUR, Ph.B., B.S., *Associate*  
 MAUDE EDNA PARSONS, A.B., *Instructor and Director of Lunch Room*.  
 GEORGIA ELIZABETH FLEMING, B.S., *Instructor*  
 GRACE ESTHER STEVENS, A.B., *Instructor*  
 FLORENCE HARRISON, B.S., *Instructor*

## FOOD

I. SELECTION AND PREPARATION OF FOOD.—The nature and use of foods, their chemical composition, and the changes effected by heat, cold, or fermentation; the principles of selection, illustrated by



marketing expeditions; processes of the manufacture of foods; combinations of different kinds. *II*; (3).

Miss CRIGLER, Miss PINCOMB, Miss STEVENS, Miss HARRISON

*Prerequisite:* Entrance credit in Physics; Chemistry 1.

6. ECONOMIC USES OF FOOD.—(Continuation of 1.) The economics of the food question; uses and applications of preservatives. *I*; (3).

Miss CRIGLER, Miss PINCOMB, Miss STEVENS

*Prerequisite:* Household Science 1.

14. PROBLEMS IN THE PREPARATION AND SERVICE OF FOOD.—(Continuation of courses 1 and 6). Preparation and service of meals for a family; cost and dietetic values; the preparation of food in quantities; individual problems in the manipulation of food materials. *I, II*; (3).

Miss GRAY, Miss HARRISON

*Prerequisite:* Household Science 1, 6; Chemistry 1, 2, 3, and the consent of the instructor.

5. DIETETICS.—The principles of diet; the relation of food to health; influence of age, sex, and occupation on diet; the construction of dietaries; dietetic treatment of certain diseases. Laboratory. *II*; (3).

Assistant Professor GOLDTHWAITE

*Prerequisite:* Household Science 1, 6; Physiology 4; Chemistry 1, 2, 3.

4. FOOD AND NUTRITION.—Application of the principles of pure science to the physiological, chemical, or bacteriological problems of food and nutrition. Individual investigation. *I*, (5).

Assistant Professor GOLDTHWAITE

*Prerequisite:* Botany 5; Chemistry 1, 2, 3, 13a, 9, 9c, five hours in botany or zoology; Household Science 1, 5, 6.

18. LUNCH ROOM MANAGEMENT.—History of the movement to feed school children; practise in lunch room management. Open to seniors. *I, II*; (3).

Miss PARSONS

*Prerequisite:* Household Science 1, 5, 6 and 14; Economics 1 or 2.

#### THE HOUSE

2. HOME ARCHITECTURE AND SANITATION.—Situation, surroundings, and construction of the house; hygiene of the home; heating, lighting, ventilating, water supply, and drainage. Lectures on house planning and sanitary plumbing, fixtures and internal drainage; exercise in making skeleton plans. *I*; (2).

Professor BEVIER, Professor WHITE, Assistant Professor ASH, Miss PINCOMB, Mr. CLARK, Miss FLEMING

3. ELEMENTARY HOME DECORATION.—(Continuation of course 2.) Evolution of the house; homes of primitive peoples; theory of color and its application in home decoration; evolution of the home; furnishings from a sanitary and artistic standpoint. *II*; (2).

Professor BEVIER, Miss FLEMING

*Prerequisite:* Art and Design 12; Household Science 2.

10. HOUSEHOLD MANAGEMENT.—Expenditure of the income; organization of the household; care of the house and family; home nursing; domestic service problem. Laboratory work in practise apartment. *II*; (2).

Miss GRAY

*Prerequisite:* Household Science 1, 2, 6; Economics 1 or 2; junior standing.

#### TEXTILES

7. TEXTILES.—Development of primitive industries; production of fibers used in textile manufacture; practise in judging cloth and in weaving. *I, II*; (2).

Miss SEYMOUR

12. HOUSEHOLD ART AND CLOTHING.—(Continuation of course 7). Materials suitable for various uses in home and in clothing; texture, quality, design in relation to form; color in relation to environment and personality; hygienic properties and cost. *II*; (3).

Miss SEYMOUR, Miss FLEMING

*Prerequisite:* Household Science 7; Art and Design 1, 12; 30 hours of university work.

17. PROBLEMS IN THE STUDY OF TEXTILES.—The quality of material; microscopic and chemical analysis of fabrics; movements related to the textile industry. Lectures; laboratory. *II*; (3).

Miss SEYMOUR

*Prerequisite:* Household Science 7, 12; Chemistry 1, 2, 3.

#### COURSES FOR TEACHERS

11. \*TEACHERS' COURSE.—The best methods of presenting the work, and its correlation with other subjects. Practise in planning such courses, and some opportunity for presenting them. (For the prospective supervisor of the subject, or for the teacher in the graded schools) *II*; (3).

Professor BEVIER, Miss PINCOMB

*Prerequisite:* Household Science 1, 2, 3, 5, 6, 7, 12, and 13; laboratory work in sewing, Saturday morning, first semester; senior standing.

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\*Students regularly registered in course 11 may have instruction in millinery, without credit, on Saturday morning from 9:00 to 11:00.



13. HISTORY OF HOME ECONOMICS.—Origin and development of home economics; the work in different types of institutions; the planning of courses for these types. *I*; (1). Professor BEVIER

*Prerequisite:* Senior standing.

9. SEMINAR.—Different phases of home economics; individual problems. *II*; (3). Professor BEVIER, Miss WHEELER

*Prerequisite:* Senior standing.

#### ECONOMICS OF THE FAMILY

15. ECONOMICS OF THE FAMILY GROUP.—The economic relations of the family as a whole and as individuals. Retail market; sources of income, social and industrial conditions affecting it; child labor; economic position of women. *I*; (3). Miss GRAY

*Prerequisite:* Household Science 3, 6, 10, 12.

16. PROBLEMS IN THE ECONOMICS OF THE FAMILY GROUP.—Individual work in the senior seminar in economics. *I, II*; (2-4).

Professor KINLEY

*Prerequisite:* Household Science 15.

#### COURSES FOR GRADUATES

Students who wish to do graduate work in household science will find it to their advantage to specialize in either the scientific or the economic phases of the subject. In either case they should be able to offer an equivalent for twenty-four hours of household science given in the University of Illinois, with a minimum of two years of chemistry, including organic chemistry, a year of biological science, and a year of either economics or sociology.

101. HOME ECONOMICS.—The origin and development of home economics; industrial, educational, and sociological aspects. *Twice a week; I, II; (1 unit)*. Professor BEVIER

102. SPECIAL INVESTIGATIONS.—Problems in the application of the principles of bacteriology, chemistry, and physiology to the ordinary processes used in preparation of food; problems in nutrition. *Twice a week; I, II; (2 units)*.

Professor BEVIER, Assistant Professor GOLDTHWAITE, Miss WHEELER

#### ITALIAN

(See ROMANCE LANGUAGES and LITERATURE.)

#### JOURNALISM

(See RHETORIC 12, 15, 17, 19, under THE ENGLISH LANGUAGE AND LITERATURE)

## LANDSCAPE GARDENING

(See HORTICULTURE.)

## LATIN

(See CLASSICS.)

## LAW

OLIVER ALBERT HARKER, A.M., LL.D., *Professor, Dean*FREDERICK GREEN, A.M. LL.B., *Professor*EDWARD HARRIS DECKER, A.B., LL.B., *Professor*JOHN NORTON POMEROY, A.M., LL.B., *Professor*CHESTER GARFIELD VERNIER, A.B., J.D., *Professor*WILLIAM GREEN HALE, B.S., LL.B., *Professor, Secretary*WARREN HOBART PILLSBURY, B.L., J.D., *Instructor*

1. CONTRACTS.—*Williston's Cases; selected Illinois cases.* (First year. Open to students in Liberal Arts and Sciences, with six hours' credit.) *I; (5) : II; (3).* Professor DECKER

2. TORTS.—*Ames & Smith's Cases.* (First year. Open to students in Liberal Arts and Sciences, with credit.) *I, II; (3).* Professor HALE

3. REAL PROPERTY.—*Gray's Cases, Vols. I and II.* (First year. Open to students in Liberal Arts and Sciences, with credit.) *II; (3).* Mr. PILLSBURY

4. COMMON LAW PLEADING.—(First year. Open to students in Liberal Arts and Sciences, with credit.) *II; (3).* Professor HARKER

4a. ILLINOIS PROCEDURE.—(Third year.) *I; (3).*

Professor HARKER

5. CRIMINAL LAW AND CRIMINAL PROCEDURE.—*Mikell's Cases.* (First year. Open to students in Liberal Arts and Sciences, with credit.) *I; (4).* Professor GREEN

6. PERSONAL PROPERTY.—*Gray's Cases, Vol. I.* (First year). Open to students in Liberal Arts and Sciences, with credit.) *I; (2).* Professor VERNIER

7. DOMESTIC RELATIONS.—*Woodruff's Cases on Domestic Relations (2nd ed.)* (First year.) *II; (2).* Professor VERNIER

8. EVIDENCE.—*Thayer's Cases.* (Second year.) *I; (5).*

Professor HALE



9. SALES.—*Williston's Cases* (2nd ed.) (Elective, second or third year.) II; (3). Professor HALE
10. REAL PROPERTY.—*Gray's Cases, Vols. II and III.* (Second year.) II; (4). Mr. PILLSBURY
11. AGENCY.—*Wambaugh's Cases.* (Second year.) I; (3). Professor VERNIER
12. EQUITY.—*Ames' Cases.* (Second year.) I; (3): II; (2). Professor POMEROY
- [13. DAMAGES.—*Beale's Cases, (2nd ed.)* (Elective, second or third year.) Not given, 1913-14. II; (2). Professor DECKER]
14. CARRIERS.—*Green's Cases.* (Elective, second or third year.) II; (3). Professor GREEN
15. BILLS AND NOTES.—*Huffcut's Cases (Colson's Ed.)* (Third year.) I; (3). Professor VERNIER
16. TRUSTS.—*Ames' Cases.* (Elective, third year.) II; (3). Professor VERNIER
17. PRIVATE CORPORATIONS.—*Canfield & Wormser's Cases.* (Third year.) II; (4). Professor GREEN
18. WILLS.—*Gray's Cases.* (Second year.) I; (2). Professor POMEROY
19. PARTNERSHIP.—*Mechem's Cases (2nd ed.)* (Third year.) I; (2). Professor HALE
20. EQUITY PLEADING.—*Thompson's Cases on Equity Pleading; Selected Illinois Cases.* (Second year.) II; (2). Professor HARKER
21. SURETYSHIP.—*Ames' Cases.* (Third year.) II; (3). Professor DECKER
22. CONSTITUTIONAL LAW (a).—*Hall's Cases.* (Third year.) I; (3). Professor GREEN
23. MORTGAGES AND RECORDING ACTS.—*Wyman's Cases on Mortgages* and part of Vol. VI of *Gray's Cases on Property.* (Elective, third year.) I; (2). Professor POMEROY
24. MUNICIPAL CORPORATIONS.—*Macey's Cases on Municipal Corporations.* (Elective, third year.) I; (2). Professor POMEROY
25. BANKRUPTCY.—*Williston's Cases.* (Elective, third year.) II; (2). Professor DECKER
26. MOOT COURT.—(Second year.) I, II; (2). Professor HARKER

27. FUTURE INTERESTS IN PROPERTY.—*Gray's Cases, Vol. V.* (Elective, second or third year. Given in 1913-14 and in alternate years.) II; (2). Professor VERNIER

28. INSURANCE.—*Wambaugh's Cases.* (Elective, second or third year. Given in 1913-14 and in alternate years.) I; (2). Professor GREEN

[29. CONVEYANCING.—*Gray's Cases on Property, Vol. III* and part of *Vol. VI (2nd ed.)* (Elective, second or third year.) Not given, 1913-14; given in 1914-15 and in alternate years. I; (2).]

30. PUBLIC INTERNATIONAL LAW.—*Lawrence's Principles* and *Scott's Cases.* (Elective, second or third year.) I; (3). Professor GARNER

31. CONFLICT OF LAWS.—*Beale's Shorter Selection of Cases on Conflict of Laws.* (Elective, third year.) Given in 1913-14 and in alternate years. II; (2). Professor VERNIER

[32. QUASI-CONTRACTS.—*Woodruff's Cases.* (Elective, second or third year. Not given, 1913-14; given in 1914-15 and in alternate years.) II; (2). Professor VERNIER]

[33. CONSTITUTIONAL LAW (b).—*Hall's Cases.* Not given, 1913-14. II; (2). Professor GREEN]

[34. PUBLIC SERVICE COMPANIES.—*Wyman's Cases (2nd ed.)* (Elective, second or third year.) Not given, 1913-14; given in 1914-15 and in alternate years. II; (2). Professor GREEN]

## LIBRARY SCIENCE

PHINEAS LAWRENCE WINDSOR, Ph.B., *Director*

FRANCES SIMPSON, M.L., B.L.S., *Assistant Director, Assistant Professor*

FLORENCE RISING CURTIS, A.B., B.L.S., *Associate*

ERNEST JAMES REECE, Ph.B., *Instructor*

ETHEL BOND, A.B., B.L.S., *Instructor*

EDNA LYMAN SCOTT, *Special Lecturer*

CATHARINE OAKS, A.B., B.L.S., *Reviser*

### SPECIAL DEPARTMENTAL LECTURERS

FRANCIS KEESE WYNKOOP DRURY, A.M., B.L.S., *Lecturer, Order Work*

PHILIP SANFORD GOULDING, A.B., *Lecturer, Cataloging*

JACOB HODNEFIELD, A.M., *Lecturer, Exchanges*

EMMA FELSENTAL, Ph.B., B.L.S., *Lecturer, General Reference*



- ALICE SARAH JOHNSON, A.B., B.L.S., *Lecturer, General Reference*  
 EMMA REED JUTTON, B.L.S., *Lecturer, Loans*  
 ADAH PATTON, B.L.S., *Lecturer, Cataloging*  
 MARGARET HUTCHINS, A.B., B.L.S., *Lecturer, General Reference*  
 \*JOHN BOYNTON KAISER, A.B., B.L.S., *Lecturer, Departmental Problems, Economics and Sociology*  
 OLA M WYETH, A.B., B.L.S., *Lecturer, Departmental Problems, Modern Languages*  
 MARY TORRANCE, A.B., B.L.S., *Lecturer, Departmental Problems, Classics*  
 MARIAN LEATHERMAN, A.B., *Lecturer, Departmental Problems, History and Political Science*  
 SABRA ELIZABETH STEVENS, A.B., *Lecturer, Library Problems*  
 JENNIE ADAH CRAIG, A.B., B.L.S., *Lecturer, Departmental Problems, English*  
 MARGARET HERDMAN, A.B., *Lecturer, Departmental Problems, Education, Philosophy, and Psychology*  
 CHARLES EDWIN JANVRIN, Ph.B., B.L.S., *Lecturer, Departmental Problems, Natural History*  
 WINIFRED FEHRENKAMP, B.L.S., *Lecturer, Library Problems*  
 ELEANOR G KARSTEN, Ph.B., *Lecturer, Library Problems*

2. REFERENCE WORK.—Methods of research; the use of reference books; practical work in the reference department of the University library. *I, II; (3).* Assistant Professor SIMPSON

3. SELECTION OF BOOKS.—Principles of selection for libraries of different types; standard lists, critical periodicals, and other aids; practise in writing book annotations. *I, II; (2).*

Miss FELSENTHAL

4. PRACTISE WORK.—Four hours a week of practical work in the various departments of the University library. To be taken with Library 2, 16, 17, 18, 19, 20, and 21. *I, II; (2).* Mr. REECE

6. SUBJECT BIBLIOGRAPHY.—Selection of books in special subjects; treatment of the literature and bibliography of each. Lectures given by professors in the respective departments of the University. *I, II; (2).* Director WINDSOR and others

[7. HISTORY OF LIBRARIES.—The foundation, development, and resources of the leading libraries of Europe and the United States. Given in alternate years, not given in 1913-14. *II; (2).*

Assistant Professor SIMPSON]

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\*Resigned, February 1, 1914.

8. **ADVANCED REFERENCE.**—Transactions of learned societies; special periodicals and government publications; indexes and other works of value to a large reference department. *I*; (2).

Assistant Professor SIMPSON

*Prerequisite:* Library 2.

9. **BOOKMAKING.**—History of the early forms of books; the invention and spread of printing; book illustration; book-binding. Given in 1914 and in alternate years. *II*; (2). Director WINDSOR

10. **PRACTISE WORK.**—Eight hours a week; a continuation of Library 4, supplemented by one month of work as a member of the staff of an assigned public library. *I, II*; (4). Miss CURTIS

12. **GENERAL REFERENCE.**—Classification and arrangement of books in the University library; the card catalogs; the more generally used reference books. (Intended for freshmen and sophomores in the University, rather than for students registered in Library School.) Repeated each semester. *I or II*; (2).

Miss HUTCHINS, Miss FELSENTHAL, Miss JOHNSON

13. **PUBLIC DOCUMENTS.**—13a.—Production and acquisition of Federal documents; their treatment and use as reference books. 13b.—American state and municipal documents; publications of foreign governments. (Second semester elective to students who have completed 13a.) *I, II*; (2). Mr. REECE

15. **SEMINAR IN LIBRARY ECONOMY.**—Special problems; library economy publications. *I, II*; (2). Mr. REECE and others

16. **ORDER ACCESSION, AND SHELF WORK.**—Order department records and routine; book-buying; publishers and discounts; copyright; serials and continuations; gifts; exchanges; duplicates; the accession book and its substitutes; the shelf list and its uses; the care of pamphlets, clippings, and maps. *I*; (2). Miss CURTIS

17. **CLASSIFICATION.**—Principles of book classification; the Dewey Decimal Classification; the Cutter Expansion Classification; book numbers. *I*; (3). Miss BOND

18. **CATALOGING.**—Dictionary cataloging; assignment of subject headings; classed cataloging; sixty hours of cataloging for the University library. *I*; (3). Miss BOND

19. **TRADE BIBLIOGRAPHY.**—Books and periodicals used as tools of the book trade of America, England, Germany, and France. *II*; (1). Mr. REECE



20. LOAN DEPARTMENT.—Records connected with the loan of books; representative loan systems; rules, regulations, and practises. *II*; (1). Miss JUTTON

21. PRINTING, BINDING, AND INDEXING.—*Printing*: Printing for libraries; practise in preparing copy and in reading proof; visits to print shops. *Binding*: Materials and methods of book-binding; bindings suitable for library use; visits to binderies; practise in preparing books for the bindery and in making necessary records; practise in the repair of books. *Indexing*: Indexes; the form of citation; the choice and arrangements of headings; kind of type; practise in the indexing of books and magazines. *II*; (2).

Director WINDSOR, Miss CURTIS, Mrs. KARSTEN

22. LIBRARY EXTENSION.—Method; library associations; library schools; library commissions; township and county library systems; traveling libraries; home libraries; other agencies. *II*; (3).

Miss CURTIS

23. LIBRARY ADMINISTRATION AND CURRENT LIBRARY LITERATURE.—Current library periodicals, bulletins, reports, catalogs, and reading lists; the organization, reorganization, and administration of small libraries; the planning and equipment of reading rooms and small library buildings; library accounts and business forms. *I, II*; (1). Miss CURTIS

24. SELECTION OF BOOKS.—English translations of representative works of French, German, Spanish, Italian and Russian novelists of the 19th century; examination of about forty newly published books sent each month to the School for inspection. *I, II*; (2).

Assistant Librarian DRURY

25. ADVANCED CLASSIFICATION AND CATALOGING.—The principal systems of book classification; rules for cataloging books. *II*; (1).

Miss BOND

*Prerequisite*: Library 17, 18.

26. LIBRARY ADMINISTRATION.—Advanced order work; library organization; library architecture; legislative and municipal reference work; library work with children; lectures on special topics by visiting librarians, members of the faculty, and the library staff. *I, II*; (3).

Miss CURTIS, Assistant Librarian DRURY, Mrs. SCOTT, Mr. REECE, Mr. KAISER and others

27. BIBLIOGRAPHICAL INSTITUTIONS.—Organization and work of societies and institutions of America and Europe interested in the

production of bibliographical material; cooperative undertakings; international bibliography. *I*; (1). Miss PATTON

28. PRACTISE WORK.—(Students may elect special practise work in certain departments of the University library.) *II*; (1 to 4).

Director WINDSOR

## MATHEMATICS

EDGAR JEROME TOWNSEND, Ph.D., *Professor*

SAMUEL WALKER SHATTUCK, C.E., LL.D., *Professor, Emeritus*

GEORGE ABRAM MILLER, Ph.D., *Professor*

HENRY LEWIS RIETZ, Ph.D., *Professor*

CHARLES HIRSCHEL SISAM, Ph.D., *Assistant Professor*

JAMES BYRNIE SHAW, D.Sc., *Assistant Professor*

ARNOLD EMCH, Ph.D., *Assistant Professor*

ARTHUR ROBERT CRATHORNE, Ph.D., *Associate*

ROBERT LACY BORGER, Ph.D., *Associate*

ERNEST BARNES LYTLE, Ph.D., *Associate*

GUSTAF ERIC WAHLIN, Ph.D., *Associate*

ELLIS BAGLEY STOUFFER, Ph.D., *Instructor*

AUBREY JOHN KEMPNER, Ph.D., *Instructor*

WILLIAM WELLS DENTON, Ph.D., *Instructor*

EDWARD WILSON CHITTENDEN, Ph.D., *Instructor*

JOSEPHINE ELIZABETH BURNS, Ph.D., *Instructor*

SIDNEY ARCHIE ROWLAND, A.B., *Assistant*

CLARENCE MARK HEBBERT, B.S., *Assistant*

GUY WATSON SMITH, M.S., *Assistant*

HENRY CHARLES ZEIS, A.B., *Assistant*

GEORGE RUTLEDGE, A.M., *Research Assistant*

The courses offered by the department are arranged to meet the needs of three classes of students: (1) those who wish to elect the subject as an element in a general education; (2) those who will have occasion to make use of mathematics in cognate subjects, and (3) those who wish to specialize in mathematics. Those who select mathematics as a major subject should take Mathematics 2, 4, and 6 in the freshman year; Mathematics 7, 9, and 10 in the sophomore year, and Mathematics 16, 18, and 19 in the junior year. In the senior year the selection may be made from the courses open to graduates and undergraduates as seems desirable. Students specializing in mathematics are advised to take work also in some line of applied mathematics.



The mathematical library, consisting of about 3,000 volumes, is adequate for advanced work and research. The leading mathematical journals are received currently. The department also has in its possession a collection of models and computing machines, which are valuable in instruction and research.

#### INTRODUCTORY COURSES FOR UNDERGRADUATES

2. COLLEGE ALGEBRA.—*I*; (3). (Three sections repeat the work in the second semester.)

Professor MILLER, Professor RIETZ, Assistant Professor SISAM, Assistant Professor SHAW, Assistant Professor EMCH, Dr. CRATHORNE, Dr. BORGER, Dr. LYTLE, Dr. WAHLIN, Dr. STOUTER, Dr. KEMPNER, Dr. DENTON, Dr. CHITTENDEN, Dr. BURNS, Mr. ROWLAND, Mr. HEBBERT, Mr. SMITH, Mr. ZEIS

*Prerequisite*: Entrance algebra,  $1\frac{1}{2}$  units; plane geometry.

3. SPHERICAL TRIGONOMETRY.—*II*; (2). Dr. CRATHORNE

*Prerequisite*: Solid and spherical geometry, Mathematics 4.

4. PLANE TRIGONOMETRY.—*I*; (2). (Three sections repeat the work in the second semester.)

Professor MILLER, Professor RIETZ, Assistant Professor SISAM, Assistant Professor SHAW, Assistant Professor EMCH, Dr. CRATHORNE, Dr. BORGER, Dr. LYTLE, Dr. WAHLIN, Dr. STOUTER, Dr. KEMPNER, Dr. DENTON, Dr. CHITTENDEN, Dr. BURNS, Mr. ROWLAND, Mr. HEBBERT, Mr. SMITH, Mr. ZEIS

*Prerequisite*: Entrance algebra,  $1\frac{1}{2}$  units; plane geometry.

5. TEACHERS' COURSE.—Secondary algebra and geometry; their educational values; position in course; methods of teaching; correlation; comparison of American methods with those of foreign countries; order of topics; most important topics; text-books; literature. Lectures; discussions; reports. *I*; (2). Dr. LYTLE

*Prerequisite*: Junior standing.

6. ANALYTIC GEOMETRY.—Plane and solid analytic geometry. *II*; (5).

Professor MILLER, Professor RIETZ, Assistant Professor SISAM, Assistant Professor SHAW, Assistant Professor EMCH, Dr. CRATHORNE, Dr. BORGER, Dr. LYTLE, Dr. WAHLIN, Dr. STOUTER, Dr. KEMPNER, Dr. DENTON, Dr. CHITTENDEN, Dr. BURNS, Mr. ROWLAND, Mr. HEBBERT, Mr. SMITH, Mr. ZEIS

*Prerequisite*: Mathematics 2, 4.

7, 9. DIFFERENTIAL AND INTEGRAL CALCULUS.—The principles of the differential and integral calculus developed and applied to functions of one and of several variables. (Section A is an honor section and may be selected by those specializing in mathematics or having an average grade of 90 in freshman mathematics.) *I*; (5); *II*; (3).

Professor RIETZ, Assistant Professor SISAM, Assistant Professor SHAW, Assistant Professor EMCH, Dr. CRATHORNE, Dr. BORGER, Dr. LYTLE, Dr. WAHLIN, Dr. STOUFFER, Dr. KEMPNER, Dr. DENTON, Dr. CHITTENDEN, Dr. BURNS

*Prerequisite*: Mathematics 6.

9a. DIFFERENTIAL AND INTEGRAL CALCULUS.—(Second Course.) The definite (single and multiple) integral with exercises in the formulation of problems arising in applied mathematics; line, surface, and volume integrals; the theorems of Stokes and Green; partial differentiation; exact differentials with applications of the conditions for exactness; elements of differential questions; approximate quadrature and integration of differential equations. *I or II*; (2).

Assistant Professor EMCH, Dr. CRATHORNE, Dr. LYTLE, Dr. STOUFFER

*Prerequisite*: Mathematics 7, 9.

8. DIFFERENTIAL AND INTEGRAL CALCULUS.—(For students in chemistry and chemical engineering.) *I*; (5).

Professor MILLER, Mr. SMITH

*Prerequisite*: Mathematics 6.

18. CONSTRUCTIVE GEOMETRY.—Development and training of space perception; properties of lines, planes, and the simpler surfaces of the second order studied by various methods of parallel and central projection; graphical interpretation of the processes of analytic geometry; analytic discussion of the methods of descriptive geometry. *I*; (3).

Assistant Professor EMCH

*Prerequisite*: Mathematics 6.

#### COURSES FOR GRADUATES AND ADVANCED UNDERGRADUATES

10. THEORY OF EQUATIONS AND DETERMINANTS.—Some of the fundamental properties of an algebraic equation in one unknown; the solutions of systems of simultaneous equations; theory of a system of linear equations; some fundamental properties of determinants. *II*; (3).

Professor MILLER

*Prerequisite*: Mathematics 6.



16. DIFFERENTIAL EQUATIONS.—General linear equations with constant coefficients; special forms of differential equations of higher order; integration in series. *I*; (3). Professor TOWNSEND

*Prerequisite:* Mathematics 8 or 9.

19. SOLID ANALYTIC GEOMETRY.—Equations of the plane and the right line in space; the more general properties of surfaces of the second degree; the classification and special properties of quadrics; a brief introduction to the theory of surfaces in general. *II*; (3). Assistant Professor SISAM

*Prerequisite:* Mathematics 8 (or 7), 10.

[20. CALCULUS OF VARIATIONS.—Those elements of the science that are most needed in the study of the higher subjects of mathematical astronomy and physics. *II*; (3). Not given, 1913-14.

Dr. CRATHORNE

*Prerequisite:* Mathematics 16.]

21. METHOD OF LEAST SQUARES.—Law of probability and error; adjustment of observation; precision of observation; independent and conditional observations. *I*; (2). Professor STEBBINS

*Prerequisite:* Mathematics 8 or 7.

22. PARTIAL DIFFERENTIAL EQUATIONS.—Integration and determination of the integration constants of such partial differential equations as arise in the study of such subjects as the flow of heat, the vibration of strings, plates, and electricity. *II*; (2).

Professor TOWNSEND

*Prerequisite:* Mathematics 16.

23. AVERAGES AND THE MATHEMATICS OF INVESTMENT.—Meaning, use, and abuse of different kinds of averages; relation of the theory of probability to averages; application of the elements of probability to annuities, insurance, and various branches of science; loans and investments; practical problems in the evaluation of investment securities. *II*; (3). Professor RIETZ

*Prerequisite:* Mathematics 2; junior standing.

[24. FUNCTIONS OF A COMPLEX VARIABLE.—*I*, *II*; (3). Not given, 1913-14. Professor TOWNSEND

*Prerequisite:* Mathematics 7, 9, 16.]

27. PROJECTIVE GEOMETRY.—Fundamental concepts; anharmonic ratio; projective pencils and ranges; projective transformations and groups; theory of conics and quadric surfaces; pencils and ranges

of conics; quadratic transformations and projective theory of cubics; applications in mechanics. *I, II; (3).* Dr. CRATHORNE

*Prerequisite:* Senior standing in mathematics.

[31. ACTUARIAL THEORY.—Application of probability to life contingencies; mortality tables; fire insurance; premiums for various types of insurance. *I; (3).* Not given, 1913-14. Professor RIETZ

*Prerequisite:* Mathematics 8, 23.]

[32. HISTORY OF MATHEMATICS.—Historical development of the elementary subjects; rise and growth of the higher mathematics chiefly in the nineteenth century; biography of the persons most influential in this development. Lectures; reports on assigned reading. *II; (2).* Not given, 1913-14. Dr. LYTLE

*Prerequisite:* Junior standing in mathematics.]

33. MODERN ALGEBRA.—Theory of matrices; system of linear equations; bilinear and quadratic forms; properties of polynomials; algebraic invariants; elementary divisors. *I, II; (3).*

Dr. BORGER

*Prerequisite:* Mathematics 9, 10.

40. FUNDAMENTAL CONCEPTS OF MATHEMATICS.—The general concepts of higher mathematics in their bearing on elementary mathematics. *II; (2).* Dr. LYTLE

*Prerequisite:* Junior standing in mathematics.

#### COURSES FOR GRADUATES

100. SEMINAR AND THESIS.—*Three times a week; I, II; (1 or 2 units).*

Professor TOWNSEND, Professor MILLER, Professor RIETZ, Assistant Professor SISAM, Assistant Professor SHAW, Assistant Professor EMCH

101. FUNCTIONS OF REAL VARIABLES.—The theory of functions of real variables; the theory of assemblages. *Three times a week; I, II; (1 unit).* Professor TOWNSEND

*Prerequisite:* Mathematics 16.

[104. EXPANSIONS IN FUNDAMENTAL FUNCTIONS.—Theory of integral equations; methods of expansion of arbitrary functions in terms of the characteristic functions of a given nucleus; applications of Green's functions, Potential functions, Fourier series, series of Legendrians, of Bessel functions, and others; differential equations of physics under given boundary conditions; the inversion of definite integrals. *Three times a week, I, II; (1 unit).* Not given, 1913-14. Assistant Professor SHAW]



[110. ELLIPTIC FUNCTIONS.—Elliptic functions applied to geometry and mechanics; the elliptic modular functions. *Three times a week; I, II; (1 unit)*. Not given, 1913-14.

Assistant Professor EMCH

*Prerequisite:* Mathematics 24.]

111. AUTOMORPHIC FUNCTIONS.—*First semester:* The group-theoretic side of the theory. *Second semester:* Function-theoretic developments and applications. *Three times a week; I, II; (1 unit)*.

Assistant Professor EMCH

*Prerequisite:* Mathematics 24 and preferably 27 and 110.

[113. THEORY OF LINEAR DIFFERENTIAL EQUATIONS.—*Three times a week; I, II; (1 unit)*. Not given in 1913-14. Dr. CRATHORNE

*Prerequisite:* Mathematics 24.]

[120. ELEMENTARY THEORY OF GROUPS.—Groups in arithmetic, geometry, and trigonometry; those which can be represented with a small number of letters; the abstract group theory; the Galois theory of equations. *Three times a week; I, II; (1 unit)*. Not given in 1913-14. Professor MILLER]

121. THEORY OF GROUPS.—*Three times a week; I, II; (1 unit)*.

Professor MILLER

*Prerequisite:* Mathematics 120.

124. THEORY OF NUMBERS.—Congruences; Kronecker's modular systems; quadratic residues; quadratic forms; algebraic numbers. *Three times a week; I, II; (1 unit)*. Dr. WAHLIN

129. THEORY OF STATISTICS.—General methods of statistical investigation; application of the theory of probability to statistical data; fitting curves to observation; interpolation; theory of errors; mathematical theory of variability and correlation; application of principles developed to problems in economics, sociology, and biology. *Three times a week; I, II; (1 unit)*. Professor RIETZ

*Prerequisite:* Mathematics 8.

130. INVARIANTS AND HIGHER PLANE CURVES.—General theory of algebraic curves; application of the theory of invariants to higher plane curves; curves of the third and fourth order. *Three times a week; I, II; (1 unit)*.

Assistant Professor SISAM

*Prerequisite:* Mathematics 16, 27.

[131. ALGEBRAIC SURFACES.—Application of homogeneous coordinates and the theory of invariants to geometry of three dimensions; general theory of surfaces; special properties of surfaces of

the third and fourth order. *Three times a week; I, II; (1 unit).*  
Not given, 1913-14. Assistant Professor SISAM

*Prerequisite:* Mathematics 19.]

[135. METRIC DIFFERENTIAL GEOMETRY.—Applications of the calculus to the general theory of curves and surfaces based primarily on the use of Cartesian co-ordinates; relation of the theory of surfaces to the theory of invariants of a pair of quadratic differential forms. *Three times a week; I, II; (1 unit).* Not given, 1913-14.

Assistant Professor SISAM

*Prerequisite:* Mathematics 16.]

141. VECTOR METHODS.—Principles of the algebras of quaternions, space analysis, and dyadics, development of theorems of differentiation and integration, applications to rational mechanics, elasticity, hydrodynamics, electrodynamics. *Three times a week; I, II; (1 unit).*

Assistant Professor SHAW

*Prerequisite:* Mathematics 16.

[142. GENERAL ALGEBRA.—Theory of linear associative algebra or hypercomplex numbers, with particular study of the systems useful for the geometry and physics of  $N$  dimensions. Applications to relativity theories, and to general differential and integral invariants. Theory of linear operators and functional equations; applications to general analysis, integro-differential equations, infinite systems. General theory of operators; applications to general invariant theories. *Three times a week; I, II; (1 unit).* Not given in 1913-14.

Assistant Professor SHAW]

## MECHANICAL ENGINEERING

CHARLES RUSS RICHARDS, M.M.E., *Professor*

GEORGE ALFRED GOODENOUGH, M.E., *Professor, Thermodynamics*

BRUCE WILLET BENEDICT, B.S., *Director, Shop Laboratories*

LEWIS ALLEN HARDING, M.E., *Professor, Experimental Mechanical Engineering*

OSCAR ADOLPH LEUTWILER, M.E., *Assistant Professor, Machine Design*

ARTHUR CUTTS WILLARD, B.S., *Assistant Professor, Heating and Ventilation*

JOHN ADLUM DENT, M.E., *Associate*

HARRY FREDERICK GODEKE, B.S., *Instructor*

HERBERT SETON EAMES, B.S., *Instructor*

ARTHUR BOQUER DOMONOSKE, M.S., *Instructor, Machine Design*



HARRY WILLIAM WATERFALL, B.S., *Instructor, Machine Design*

FREDERICK CALKINS TORRANCE, M.E., *Instructor*

JOHN NICHOLAS VEDDER, A.M., *Assistant, Engineering Experiment Station*

ALONZO PLUMSTED KRATZ, M.S., *Assistant, Engineering Experiment Station*

DAVID LEONARD SCROGGIN, *Instructor, Machine Work*

EDGAR THOMAS LANHAM, *Instructor, Forge Work*

ROBERT EDWIN KENNEDY, *Instructor, Foundry Work*

GUSTAVE ADOLPH GROSS, *Instructor, Pattern Making*

GUSTAV HOWARD RADEBAUGH, *Instructor, Machine Work*

JOSEPH CULPEPPER PENDLETON, *Instructor, Foundry Work*

JAMES MERION DUNCAN, *Assistant, Pattern Making*

PETER JOSEPH REBMAN, *Assistant, Forge Work*

JOHN ALEXANDER FRISK, *Assistant and Mechanician*

3. POWER MEASUREMENT.—The apparatus used in engine and boiler tests—scales, thermometers, indicators, brakes and dynamometers, gauges, calorimeters; methods of calibrating and using such apparatus; tests for horse-power of steam engines, pumps, and gas engines. Reports. *I*; (2).

Professor HARDING, Mr. GODEKE, Mr. EAMES, Mr. TORRANCE  
*Prerequisite*: Mechanical Engineering 16, Mathematics 9.

4. ELEMENTS OF MACHINE DESIGN.—Design of machine elements: Bolts, keys, journals, bearings, couplings; forms of gear teeth; spur and bevel gears. *I*; (2). Mr. WATERFALL

*Prerequisite*: General Engineering Drawing 1, 2.

5. MECHANISM (Kinematics of Machinery).—Typical mechanisms and mechanical movements; kinematic principles involved in laying out such mechanisms; the methods of Reuleaux; parallel motions; quick return motions; valve gears; epicyclic trains. *I*; (3). Mr. DENT

*Prerequisite*: Physics 1, 3; Theoretical and Applied Mechanics 7.

6. HEAT ENGINES.—The steam engine; steam turbine; gas engine; air compressor; refrigerating machine. Mixtures of gases; combustion of gaseous fuels. (A continuation of course 7.) *I, II*; (2). Professor RICHARDS, Professor GOODENOUGH

*Prerequisite*: Mechanical Engineering 7.

7. THERMODYNAMICS.—The transformation of heat into work; the second law and its connection with irreversible processes; the

properties of heat media, the perfect gases, saturated and superheated vapors; the flow of fluids. *II*; (3).

Professor GOODENOUGH, Mr. DENT

*Prerequisite:* Mathematics 9a; Theoretical and Applied Mechanics 8.

8. MECHANICS OF MACHINERY.—Friction in machine parts; useful application of friction as in friction clutches and brakes; transmission of power by ropes and belting; brakes, clutches, and dynamometers; hoisting machinery; hoisting in mines; elevators and cranes. *I*; (3).

Assistant Professor LEUTWILER, Mr. DENT

*Prerequisite:* Theoretical and Applied Mechanics 9, 11; Mechanical Engineering 5, 7.

9. MACHINE DESIGN.—Theory of machine design, with applications; investigation of actual machine similar to the one to be designed; design of machinery subjected to heavy and variable stresses: Punches, shears, presses, riveters, and cranes. *I, II*; (3).

Assistant Professor LEUTWILER, Mr. DOMONOSKE, Mr. WATERFALL

*Prerequisite:* Theoretical and Applied Mechanics 8, 9; Mechanical Engineering 4, 5.

11. STEAM ENGINES AND BOILERS.—The construction, operation, and care of boilers and engines; elementary thermodynamics; the indicator and indicator diagrams; steam engine performance. (For students in civil, architectural, and municipal engineering.) *II*; (3).

Mr. DENT, Mr. GODEKE, Mr. WATERFALL

*Prerequisite:* Physics 1.

12. MECHANICAL ENGINEERING LABORATORY.—Experiments on engines, turbines, gas engines, pumps, boilers, injectors, air compressors, hoisting appliances, heating apparatus, and the refrigerating machines. Tests of power plants in the vicinity. *I*; (3).

Professor HARDING, Mr. GODEKE, Mr. EAMES, Mr. TORRANCE

*Prerequisite:* Mechanical Engineering 3, 7.

13. MECHANICAL ENGINEERING LABORATORY.—The testing and calibration of instruments and apparatus; use of the indicator; calculation of horse-power and steam consumption; reading of indicator diagrams; valve setting. (For students in electrical engineering.) *II*; (3).

Professor HARDING, Mr. GODEKE, Mr. EAMES, Mr. TORRANCE

14. DESIGN OF POWER PLANTS.—Design, with estimates and specifications, of some form of power plant. *II*; (3).

Assistant Professor LEUTWILER, Mr. GODEKE, Mr. DOMONOSKE

*Prerequisite:* Mechanical Engineering 12.



15. THERMODYNAMICS AND HEAT ENGINES.—(A synopsis of courses 6 and 7, for students in electrical engineering.) *I, II; (3).*

Professor GOODENOUGH, Mr. DENT, Mr. EAMES, Mr. VEDDER

*Prerequisite:* Mechanical Engineering 11 or 16 or 23.

16. STEAM ENGINEERING.—Engines, boilers, pumps, condensers, and other steam machinery. *II; (3).*

Professor HARDING, Mr. DENT, Mr. EAMES

*Prerequisite:* Physics 1, 3.

19. SEMINAR.—Papers on subjects relating to current engineering practise; the indexing of current engineering literature. Each student subscribes for a technical journal. Open to seniors only. *I, II; (1).*

Professor HARDING

23. STEAM ENGINEERING.—(A synopsis of courses 11 and 16, for students in electrical engineering.) *I; (2).*

Professor GOODENOUGH, Mr. DENT, Mr. EAMES, Mr. VEDDER

24. MACHINE DESIGN AND MECHANISM.—The design of simple machine elements: keys, couplings, gears; the principles of mechanism. (For students in electrical engineering.) *I; (3).*

Mr. DOMONOSKE, Mr. WATERFALL

*Prerequisite:* General Engineering Drawing 1, 2.

27. ADVANCED LABORATORY PRACTISE.—Special research work in the mechanical engineering laboratory. Open to seniors only. *Time and credits will be arranged by consultation.*

Professor HARDING

*Prerequisite:* Mechanical Engineering 12.

29. SEMINAR FOR JUNIORS.—Technical publications; the presentation of abstracts of important articles on engineering topics. Methods of classification; filing systems for clippings, catalogs, and drawings. *II; (1).*

Professor RICHARDS

*Prerequisite:* Rhetoric 1.

31. TRANSMISSION OF POWER.—The transmission of power by shafting, belts, ropes, cables, water, compressed air, steam, and gas. *I; (2).*

Professor RICHARDS

*Prerequisite:* Mechanical Engineering 7, 8.

32. MECHANICAL ENGINEERING LABORATORY.—Heating and ventilation. Calibration of instruments, tests of various heating systems, experiments on fans and blowers. *I; (1).*

Assistant Professor WILLARD, Mr. GODEKE, Mr. TORRANCE

33. THESIS.—Investigation of special subject and preparation of thesis embodying a review of the literature of the subject, the results of investigation, and a discussion of those results. Weekly

reports during the second semester. (Required of seniors.) *II*; (3).

Professor RICHARDS, Professor GOODENOUGH, Director BENEDICT, Professor HARDING, Assistant Professor LEUTWILER, Assistant Professor WILLARD

35. MINE MACHINERY.—Air compressors, pumps, gas engines, and other machinery used in mining. (For students in mining engineering.) *II*; (2). Mr. DENT

36. INDUSTRIAL PLANT DESIGN.—Theory and practise in the design and equipment of industrial plants. Design of buildings, heating, ventilation, lighting, power generation and transmission, drying processes, etc. *II*; (3). Professor HARDING

*Prerequisite:* Theoretical and Applied Mechanics II, Mechanical Engineering 9.

38. HEATING AND VENTILATION.—The theory and practise of warming and ventilating buildings; systems of heating, including hot air, hot water and steam; central or district heating plants; requirements for good ventilation; air washing and humidifying plants; fans; etc. (Primarily for students in architecture and architectural engineering.) *I*; (2 or 3). Assistant Professor WILLARD

*Prerequisite:* Physics 2a and 2b or Physics I and 3.

39. HEATING AND VENTILATION.—(Advanced course, primarily for students in mechanical engineering.) *II*; (3).

Assistant Professor WILLARD

*Prerequisite:* Physics I and 3; Mechanical Engineering 7 and 16.

41. SHOP PRACTISE.—*Pattern work* (18 weeks)—Hand and machine methods in the production of useful patterns.

*Foundry work* (9 weeks)—Modern foundry practise, including bench, floor, and machine moulding; all branches of core making; operation of cupola and brass furnace; casting of iron, brass, and alloys.

*Forge work* (9 weeks)—Hand and power forging and welding of metals, heat treatment of carbon and high speed steels in modern, gas, electric, and cyanide furnaces; case carbonizing. *I, II*; (3).

Director BENEDICT, Mr. GROSS, Mr. KENNEDY, Mr. LANHAM, Mr. DUNCAN, Mr. PENDLETON, Mr. REBMAN

42. MACHINE SHOP PRACTISE.—Modern machine shop manufacturing methods; machine operation; training in shop management; organization; production methods; despatching work; ordering,



storing, and routing materials; time studies; shop accounting; inspection and all activities of the machine department of a manufacturing plant. *I; (3): II; (2).*

Director BENEDICT, Mr. SCROGGIN, Mr. RADEBAUGH

48. FORGE WORK FOR AGRICULTURAL STUDENTS.—Forging and welding; tempering tools; pointing and hardening cultivator shovels, plow shares. *Six hours a week, either half of I or II; (1).*

Mr. LANHAM, Mr. REBMAN

49. WOOD WORK FOR AGRICULTURAL STUDENTS.—Carpentry for the farmer: use of tools; layout and construction of building joints; repairs to buildings and equipment. *Six hours a week, either half of I or II; (1).*

Mr. GROSS, Mr. DUNCAN

[90. SCIENCE OF MANAGEMENT.—Historical review of industrial development; modern industrial tendencies; principles of organization; selection and compensation of labor; application of science to industrial problems; practical shop systems of management; production; etc. *I, II; (3).* Not given, 1913-14. Director BENEDICT

*Prerequisite:* Mechanical Engineering 41, 42.]

#### COURSES FOR GRADUATES

Entrance upon graduate work in mechanical engineering presupposes the full undergraduate course in that subject.

106. HEAT MOTORS.—The advanced theory of the internal combustion motor, and of the steam turbine. The general principles and methods of refrigeration. *Twice a week; II; (1 unit).*

Professor GOODENOUGH

107. THERMODYNAMICS.—The general principles of thermodynamics and their application to the solution of physical and engineering problems. *Twice a week; I; (1 unit).*

Professor GOODENOUGH

*Prerequisite:* Mechanical Engineering 7 or an equivalent.

109. MACHINE DESIGN.—The general principles of rational design; the application of mechanics of materials. Individual problems. *Twice a week; I or II; (1 unit).*

Assistant Professor LEUTWILER

112. LABORATORY INVESTIGATION.—Special investigations of problems relating to combustion of fuel; boiler economy; steam engines and turbines; gas engines and producers; properties of explosive mixtures; mechanical refrigeration. Original work. *Three times a week; I, II; (1½ units).*

Professor RICHARDS and assistants

114. DYNAMICS OF MACHINERY.—Advanced problems. Balancing; whirling and vibration of shafts; theory of governors; fly wheels; force and mass reduction; stresses in rotating masses. *Twice a week; I, II; (1 unit).* Professor GOODENOUGH

## MECHANICS, THEORETICAL AND APPLIED

ARTHUR NEWELL TALBOT, C.E., *Professor, Municipal and Sanitary Engineering; in charge of Theoretical and Applied Mechanics*

HERBERT FISHER MOORE, M.M.E., *Assistant Professor*

MELVIN LORENIUS ENGER, C.E., *Assistant Professor*

VIRGIL R FLEMING, B.S., *Associate*

CLARENCE EUGENE NOERENBERG, A.B., A.E., *Instructor*

FRED B SEELY, B.S., *Instructor*

GEORGE PAUL BOOMSLITER, B.S., *Instructor*

HARRISON FREDERICK GONNERMAN, B.S., *Instructor*

NEWTON EDWARD ENSIGN, A.B., B.S., *Instructor*

HARRY GARDNER, M.S., *Instructor*

ALEX VALLANCE, M.E., *Instructor*

6. ENGINEERING MATERIALS.—The properties and requirements for materials used in engineering construction, the effect of methods of manufacture upon the quality of the material, and the specifications and standard tests used to secure acceptable grades of material. Lectures and assigned reading. *I; (1).*

Professor TALBOT, Assistant Professor MOORE

*Prerequisite:* Registration in Theoretical and Applied Mechanics 9.

7, 8. ANALYTICAL MECHANICS.—The mechanics of engineering rather than that of astronomy and physics: Fundamental concepts; equilibrium and motion; engineering problems; statement of conditions and use of data. (The work begins in the second semester; in the first semester of the following year it is given concurrently with Theoretical and Applied Mechanics 9.) Maurer's *Technical Mechanics*. *II; (3); I; (2½).*

Assistant Professor MOORE, Assistant Professor ENGER, Mr.

FLEMING, Mr. NOERENBERG, Mr. BOOMSLITER, Mr. SEELY, Mr.

ENSIGN, Mr. GONNERMAN, Mr. GARDNER, Mr. VALLANCE

*Prerequisite:* For 7, Mathematics 7, registration in Mathematics 9; for 8, Mathematics 9; Theoretical and Applied Mechanics 7.



9. RESISTANCE OF MATERIALS.—The mechanics of materials; experiments and investigations in the materials laboratory; problems in ordinary engineering practise; the quality and requirements for structural materials. Merriman's *Mechanics of Materials. Laboratory weekly. I*; (3½).

Assistant Professor MOORE, Assistant Professor ENGER, Mr. FLEMING, Mr. NOERENBERG, Mr. BOOMSLITER, Mr. SEELY, Mr. ENSIGN, Mr. GONNERMAN, Mr. GARDNER, Mr. VALLANCE

*Prerequisite*: Mathematics 9; Theoretical and Applied Mechanics 7; registration in Theoretical and Applied Mechanics 8.

10. HYDRAULICS.—The pressure and the flow of water and its utilization as motive power; observation and measurement of pressure, velocity, and flow; power and efficiency; determination of experimental coefficients. Hoskins' *Hydraulics. Laboratory weekly; II*; (3).

Assistant Professor MOORE, Assistant Professor ENGER, Mr. FLEMING, Mr. SEELY, Mr. GONNERMAN, Mr. GARDNER, Mr. VALLANCE

*Prerequisite*: Mathematics 9; Theoretical and Applied Mechanics 8.

11. ANALYTICAL MECHANICS.—Advanced kinetics; problems and applications. (An extension of Theoretical and Applied Mechanics 7 and 8, for mechanical engineers.) *II*; (3). Mr. SEELY

*Prerequisite*: Mathematics 9; Theoretical and Applied Mechanics 8.

14. ELEMENTS OF MECHANICS.—Kinematics, kinetics, and statics. (For architects and others who have not taken the calculus.) Morley's *Mechanics for Engineers. II*; (4).

Mr. NOERENBERG, Mr. BOOMSLITER, Mr. GARDNER

*Prerequisite*: Mathematics 2, 4.

15, 16. STRENGTH OF MATERIALS.—Graphical methods of determining the elastic curve of beams; centroids and moments of inertia of areas; reinforced concrete beams and columns; properties and tests of engineering materials. (For students in architecture and others without the prerequisites required for Theoretical and Applied Mechanics 9.) Murdock's *Strength of Materials. Laboratory every other week; I, II*; (3).

Mr. NOERENBERG, Mr. BOOMSLITER, Mr. SEELY, Mr. VALLANCE.

*Prerequisite*: Theoretical and Applied Mechanics 14.

COURSES FOR GRADUATES

Entrance upon graduate work in theoretical and applied mechanics presupposes a full undergraduate course in that subject.

101. ANALYTICAL MECHANICS.—Methods of treatment and attack; the more complex problems and applications; critical and comparative study of texts. *Twice a week; I; (1 unit).*

Assistant Professor MOORE

102. RESISTANCE OF MATERIALS.—Properties of materials used in engineering construction and the methods of determining these properties; analysis and investigation in mechanics of materials; the effect of form of member in a structure or machine; the method of application of forces; comparative study of texts. *Twice a week; II; (1 unit).*

Assistant Professor MOORE

103. HYDRAULICS AND HYDRAULIC ENGINEERING.—The laws of hydraulics and their application to engineering problems; hydraulic power and its development; design and investigation. *Twice a week; II; (1 unit).*

Professor TALBOT

104. EXPERIMENTAL WORK IN THE LABORATORY OF APPLIED MECHANICS.—Investigation in the materials testing laboratory on materials and on their action as used in machines and structures; experiments in the hydraulic laboratory with pumps, motors, and measuring devices, and the investigation of the laws of hydraulics, the development of power, and the study of various hydraulic problems. *Twice a week; I, II; (½ to 2 units).*

Professor TALBOT, Assistant Professor MOORE

105. EXPERIMENTAL AND ANALYTICAL WORK IN REINFORCED CONCRETE.—Research: interpretation of available experimental results and their application to the design of structures; principles of construction; typical reinforced concrete structures. *Twice a week. I, II; (½ units or more).*

Professor TALBOT

METEOROLOGY

(See under GEOLOGY.)

MILITARY SCIENCE

FRANK DANIEL WEBSTER, Major 20th U. S. Infantry, *Professor and Commandant*

FREDERICK WILLIAM POST, 1st Sergeant, U. S. A., retired, *Administrative Assistant*

CLIFFORD HARPER WESTCOTT, *Assistant*



EDWIN CHESTER PROUTY, *Assistant*

HERBERT EDWARD HOWES, *Assistant*

HAROLD PAUL OUSLEY, *Assistant*

EDWARDS HALL BERRY, *Assistant*

FREDERICK JOHN GIEHLER, *Assistant*

PAUL COBB RICH, *Assistant*

CHARLES R VELZY, *Assistant*

\*1. THEORETICAL INSTRUCTION.—Infantry Drill Regulations. For all male students. *II*; (1).

Mr. WESTCOTT, Mr. PROUTY, Mr. HOWES, Mr. OUSLEY, Mr. BERRY

\*2. PRACTICAL INSTRUCTION.—*Infantry*.—School of the soldier; company and battalion; regimental ceremonies. *Artillery*.—School of the cannoneer and battery dismounted. Freshman and sophomore years. *I, II*; (1). Professor WEBSTER

3. THEORETICAL INSTRUCTION.—For sophomores: Drill Regulations and military administration. For juniors: Field Service Regulations. For seniors: Field Engineering. This course is obligatory upon commissioned officers and sergeants, recommended to corporals, and open to others. *I, II*. Professor WEBSTER

AUTHORIZED TEXT-BOOKS.—*United States Drill Regulations; United States Army Regulations; Field Service Regulations, United States Army; Guard Manual; Small Arms Firing Regulations.*

## MINERALOGY

(See GEOLOGY 5, 5a, 6, 7.)

## MINING ENGINEERING

HARRY HARKNESS STOEK, B.S., E.M., *Professor*

ELMER ALLEN HOLBROOK, B.S., *Assistant Professor*

STEPHEN OSGOOD ANDROS, A.B., B.S., E.M., *Associate*

LEWIS EMANUEL YOUNG, B.S., E.M., *Instructor*

1. ELEMENTARY MINING PRINCIPLES.—The general processes of mining engineering; terminology. Lectures; trips of inspection. *I*; (1). Professor STOEK, Assistant Professor HOLBROOK

2. EARTH AND ROCK EXCAVATION.—Explosives; blasting; drilling; boring; tunneling; shaft sinking; coal cutting; timbering; prospecting. *II*; (3). Mr. YOUNG

*Prerequisite*: Chemistry 1a or 1b.

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\*Freshmen and sophomores are required to drill one and one-half hours each week until March 15; after that date, three hours each week. Freshmen attend recitations one hour a week in the second semester. Assignments to classes and companies are made by the Commandant of Cadets according to circumstances.

3. MINING METHODS.—Mining and timbering of bedded, vein, and placer deposits. *I*; (2). Professor STOEK, Mr. ANDROS

*Prerequisite:* Mining Engineering 2.

3a. MINING PRINCIPLES.—Terminology; explosives; blasting; drilling; tunneling; shaft-sinking; mining and timbering of flat deposits. (For students in ceramics and ceramic engineering.) *I*; (2).

Mr. YOUNG

*Prerequisite:* Chemistry 1a or 1b.

4. MINE SURVEYING.—The application of general surveying methods to mine work; the description and use of instruments employed underground and in connecting surface and underground surveys; the platting and use of mine maps; mineral land surveying; the theory and use of solar attachments; determination of the meridian; theory and use of stadia; application of topographic and railroad surveying to mining conditions; estimation and prospecting of mineral deposits. *II*; (4).

Mr. YOUNG

*Prerequisite:* Civil Engineering 21.

5. MINE VENTILATION.—Mine gases; safety lamps; mine ventilation; mine lighting; explosions in mines; mine fires; rescue work; first aid. *II*; (3).

Professor STOEK, Mr. ANDROS

*Prerequisite:* Chemistry 1a or 1b.

6. MECHANICAL ENGINEERING OF MINES.—Hoisting: ropes, cages, hoisting engines, and other appliances. Haulage: the different systems used underground and on the surface; the methods of loading and unloading; mine stables; transportation of workmen. Signaling. Drainage of mines: mine dams, mine pumps. *I*; (3).

Mr. YOUNG

*Prerequisite:* Mechanical Engineering 16, 11, or 35.

7. MINE ADMINISTRATION, ORGANIZATION, AND MINING LAW.—Mining companies. Trade agreements—relations between employers and employees. Transportation and marketing. The general mining laws of the several states, with particular attention to those of Illinois. *II*; (2).

Professor STOEK

8. MINE PLANT.—General layout; design; estimates for construction; specifications for mining and metallurgical plants. *II*; (2).

Assistant Professor HOLBROOK

*Prerequisite:* Mining 12.

9. PREPARATION OF COAL AND ORES.—Coal washing: history, application, principles, processes, and machines used in the prepara-



tion and washing of anthracite and bituminous coal; American and foreign practise; principles and machines used in breaking, pulverizing, and concentrating ores and mineral products. *I*; (3).

Assistant Professor HOLBROOK

*Prerequisite:* Chemistry 1a or 1b, 2 and 3, Physics 1 and 3.

10. MINING LABORATORY.—Different coals, and their availability for washing; complete commercial tests, using small commercial machines wherever possible; design of flow sheets; analysis of products; briquetting of fuels; concentration tests on a lead, zinc, or iron ore; amalgamation and cyanidation of a gold ore. *II*; (2).

Assistant Professor HOLBROOK

*Prerequisite:* Mining Engineering 9.

11. THESIS.—Individual investigation of a special mining subject; preparation of thesis giving review of the literature on the subject, the results of experimental work, and a general discussion of the subject. *II*; (3).

12. MINE DESIGN.—General theory of framed structures; design of mine structures of wood, steel, and masonry. Tipple arrangements; rock houses; ore bins; general surface plant; design and dredging of mining and metallurgical plant. *I*; (3).

Assistant Professor HOLBROOK

*Prerequisite:* Civil Engineering 20.

13. UTILIZATION OF FUELS.—The manufacture, handling, and utilization of wood, charcoal, peat, lignite, bituminous and anthracite coal, petroleum, natural and artificial gas, and refractories in mining and metallurgical practise. *II*; (2). Assistant Professor HOLBROOK

14. MINING PROBLEMS.—Review of mining literature; reports. *II*; (1). Professor STOEK

#### COURSES FOR GRADUATES

Entrance upon graduate work in mining engineering presupposes a full undergraduate course in that subject.

101. ADVANCED MINING METHODS.—Coal and ore fields of the United States; methods and economics of mining: utilization, marketing, storage, and transportation of coal and ores. *Twice a week; I, II; (1 unit)*. Professor STOEK

102. ADVANCED PREPARATION OF COAL AND ORES.—Detailed investigation and discussion of settling ratios, laws of crushing, sorting vs. sizing, etc.; specific mill and washing problems. *Twice a week; I, II; (1 unit)*. Assistant Professor HOLBROOK

MODERN LANGUAGES

(See ENGLISH LANGUAGE AND LITERATURE, GERMANIC LANGUAGES AND LITERATURE, and ROMANCE LANGUAGES AND LITERATURE.)

MUNICIPAL AND SANITARY ENGINEERING

ARTHUR NEWELL TALBOT, C.E., *Professor*

MELVIN LORENIUS ENGER, B.S., C.E., *Assistant Professor, Theoretical and Applied Mechanics*

PAUL HANSEN, B.S., *Associate*

HAROLD EATON BABBITT, B.S., *Instructor*

2. WATER SUPPLY ENGINEERING.—Source of supply; hydraulics of wells; stream flow; impounding and storage reservoirs; conduits and pipe lines; pumps and pumping machinery; stand-pipes and elevated tanks; the distribution system; tests and standards of purity of potable water. Designing weekly. Turneaure and Russell's *Public Water Supplies*. I; (4).

Assistant Professor ENGER, Mr. BABBITT

*Prerequisite:* Theoretical and Applied Mechanics 9, 10; Chemistry 1; Mechanical Engineering 11.

3. SEWERAGE.—The design and methods of construction of sewerage systems: Sanitary necessity of sewerage; water carriage systems, both separate and combined; surveys and general plans; hydraulics of sewers; house sewage and its removal; relation of rainfall to storm water flow; determination of size and capacity of sewers; forms and strength of sewer appurtenances; modern methods of sewage disposal; estimates and specifications. Designing weekly. Folwell's *Sewerage*; II; (3).

Assistant Professor ENGER, Mr. BABBITT

*Prerequisite:* Theoretical and Applied Mechanics 9, 10; Chemistry 1; Municipal and Sanitary Engineering 2.

6a, b. WATER PURIFICATION, SEWAGE DISPOSAL, AND GENERAL SANITATION.—Impurities in water supplies and methods and processes of their removal; the modern methods of sewage disposal by filtration, chemical precipitation, irrigation; representative purification plants; garbage collection and disposal; sanitary restrictions and regulations and general sanitation. Lectures; seminar work; drafting. I; (3); II; (2). Professor TALBOT, Mr. BABBITT, Mr. HANSEN

*Prerequisite:* Municipal and Sanitary Engineering 2, 3, 5a; Chemistry 1, 3, 10b.



7. WATER SUPPLY ENGINEERING.—(Similar to Municipal and Sanitary Engineering 2, for students in sanitary science.) Designing weekly. Turneaure and Russell's *Public Water Supplies*. I; (4). Mr. BABBITT

*Prerequisite:* Theoretical and Applied Mechanics 5, 12, 10; Chemistry 3.

8. SEWERAGE.—(Similar to Municipal and Sanitary Engineering 3, for students in sanitary science.) Designing weekly. Folwell's *Sewerage*. II; (3). Mr. BABBITT

9. HYDRAULIC DESIGN AND CONSTRUCTION.—The design and methods of construction of reservoirs, dams, conduits, and waterways; hydraulic engineering problems. II; (2).

Assistant Professor ENGER

30. THESIS.—Investigation or design of an engineering problem. Required of seniors. II; (2). Professor TALBOT, Mr. BABBITT

#### COURSES FOR GRADUATES

Entrance upon graduate work in municipal and sanitary engineering presupposes a full undergraduate course in that subject.

102. WATER SUPPLY ENGINEERING.—Sources and requirements of water supply; general water-works construction; pumps and pumping; design of reservoirs and elevated tanks; water-works operation and the valuation of plants. *One to three times a week; I or II; (1 unit)*. Professor TALBOT

103. SEWERAGE.—General sewerage design and construction; sewerage systems; hydraulics of sewers; and a study of run-off. *Once or twice a week; II; (1 unit)*. Professor TALBOT

106. WATER PURIFICATION, SEWAGE DISPOSAL AND GENERAL SANITATION.—The design, construction, and operation of water purification plants and of sewage disposal works; the study of existing plants; comparison of results and cost of construction and operation; experimental work on water filters and septic tanks; garbage disposal; general sanitation. *Once a week; II; (½ unit)*.

Professor TALBOT

#### MUSIC

✓ CHARLES HENRY MILLS, Mus.D., F.R.C.O., F.A.G.O., *Director, Professor of Music*

✓ GEORGE FOSS SCHWARTZ, A.M., Mus.B., *Assistant Professor, Theory and History of Music*

✓ CONSTANCE BARLOW-SMITH, *Assistant Professor, Sight-Singing, Ear Training, Public School Music*

- ✓ HENRI JACOBUS VAN DEN BERG, *Instructor, Piano*  
 ✓ ALBERT AUSTIN HARDING, *Instructor, Wind Instruments, Director of the Band*  
 ✓ FLORENCE MARY KIRKUP, *Instructor, Voice*  
 ✓ EDNA ALMEDA TREAT, Mus.B., *Instructor, Piano*  
 ✓ EDSON WILFRED MORPHY, *Instructor, Violin*  
 ✓ LOWELL LESLIE TOWNSEND, A.M., *Instructor, Piano*  
 HEBER DIGNAM NASMYTH, *Instructor, Voice*  
 ANNA VIOLA SIMON, *Instructor, Voice*

## HISTORY AND THEORY

1. HISTORY OF MUSIC.—The development of music; the rise of polyphony and dramatic music; the origin and progress of the oratorio; the evolution of instruments and instrumental forms; the lives of composers. Lectures; assigned collateral readings. *I, II; (2).* Assistant Professor SCHWARTZ
2. HARMONY.—*I, II; (2).* Assistant Professor SCHWARTZ
3. ADVANCED HARMONY.—*I, II; (3).* Assistant Professor SCHWARTZ
4. COUNTERPOINT, CANON, AND FUGUE.—*I, II; (3).* Professor MILLS
- 5.<sup>1</sup> GENERAL THEORY, FREE COMPOSITION.—*I, II; (2).* Professor MILLS, Assistant Professor SCHWARTZ
- 5a. ACOUSTICS.—*I, II; (1).* Professor MILLS

PIANO<sup>2</sup>

Professor MILLS, Mr. VAN DEN BERG, Miss TREAT, Mr. TOWNSEND

6a, 6b, 6c. PREPARATORY COURSE: THREE YEARS.—Special attention is given to the formation of a correct touch and technique, and to intelligence in interpretation. In the examination at the conclusion of the course students are required to play: Simple scales and arpeggios at fairly rapid tempo; scales in double octaves at a moderate speed; Bach, *little preludes and fugues*; Czerny, *Op. 229*; an early sonata of Haydn. *I, II; (no collegiate credit).*

7. *First Year.* Development of technique; scales and arpeggios in various forms; Wolff, *Octave Studies*; Czerny, *Op. 229, Bks. 3, 4*; Cramer-Bulow, *Etudes*; Bach, *Two-part inventions*; sonatas of Haydn and Mozart; earlier sonatas of Beethoven;

<sup>1</sup>Music 5, *I*, may be taken with Course 4, *II*, if desired.

<sup>2</sup>Since it is undesirable and impossible to establish a set course for all students, the course outline given above must be taken only as indicating the general scope of the work required of each student.



Mendelssohn, *Songs Without Words*; compositions (smaller works) of Schubert, Raff, Grieg, McDowell, Chaminade, Moszkowski, and others. *I, II*; (6).

7a. *One Year*.—The first year's work in piano taken as a minor by senior collegiate students majoring in voice or violin. *I, II*; (2).

8. *Second Year*.—Development of technique; scales in double thirds; Tausig-Ehrlich, *Daily Studies, Bk. I*; Pacher, *Octave Studies*; Czerny, *Op. 740, Bks. I, 4*; Bach, *Three-Part Inventions*; Cramer-Bulow, *Etudes*, continued; Bach, selections from *French and English Suites*; sonatas and other compositions of Scarlatti, Beethoven, Schubert, Schumann, Mendelssohn, Lacombe, McDowell. *I, II*; (6).

9. *Third Year*. Development of technique; scales in double sixths; Tausig-Ehrlich, *Daily Studies, Bk. I*, continued; Kullak, *Octave Studies, Bk. II*; Bach, *Welltempered Clavichord*; Clementi-Tausig, *Gradus ad Parnassum*; sonatas and concertos by Mozart, Mendelssohn, Beethoven, Hiller; selections from works of Chopin, Schubert, Moszkowski, Brahms, Schumann, Beethoven, Rubinstein, Liszt, Debussy, and Reger. *I, II*; (6).

10.<sup>1</sup> *Fourth Year: Daily Studies*, Tausig-Ehrlich, *Bk. II* and Brahms; *Octave Studies*, Chovan, Sinding, and others; *Etudes*, Chopin, Alkan, Liszt, Godowsky, and Rubinstein. Selections and concertos by Brahms, Liszt, Rubinstein, Beethoven, Chopin, Schumann, McDowell, and other modern composers. *I, II*; (6).

#### VOICE<sup>2</sup>

MR. NASMYTH, MISS KIRKUP, MISS SIMON

11a, 11b, 11c. *Preparatory Course: Three years*. The fundamental principles of voice culture, viz., correct breathing and the proper placing of the voice. In the examination at the conclusion of the course students are required to sing: Simple scales and arpeggios; studies selected from Concone, Sieber, Panofka, and Panseron; songs selected from Schubert, Schumann, and Mendelssohn. *I, II*; (no collegiate credit).

<sup>1</sup>Students who major in piano and who are taking Music 10 are required to take Music 28.

<sup>2</sup>Since it is undesirable and impossible to establish a set course for all students, the course outline given above must be taken only as indicating the general scope of the work required of each student.

12. *First Year.* Fundamental principles of Tone Production; simple exercises for breath control; vocalises by Concone or Castelli, to aid in artistic phrasing, rythm, and accent; songs by English and American composers; Lieder by Franz and Schubert, for enunciation, and interpretation. Vocal hygiene, and physiology of the vocal organs. *I, II; (6).*

12a. The first year's work in voice taken as a minor by senior collegiate students majoring in piano or violin. *I, II; (2).*

13. *Second Year.* Tone production (continued), breath control, scales, and arpeggios for flexibility, poise and sustained tone; English, Italian, and German diction; vocalises by Garcia; Concone and Castelli (continued); vocal hygiene; sacred and secular songs and ballads selected from English and American composers; classical German Lieder, from Jensen, Meyer-Helmund, Franz, Schubert, and Schumann. *I, II; (6).*

14. *Third Year.* Advanced exercises for tone production, and breath control in public singing; vocalises continued; vocal hygiene; simple arias from oratorios and operas. Advanced songs in English, French, German, and Italian. Lieder selected from Mendelssohn, Brahms, Grieg, Dvorak, Schubert, Schumann, Hugo, Wolff, and Richard Strauss. *I, II; (6).*

15.<sup>1</sup> *Fourth Year.* Preparation for graduation; deportment; diction, interpretation, public recital, the advanced lieder, oratorio, and operatic arias classical and modern. *I, II; (6).*

#### VIOLIN<sup>2</sup>

Mr. MORPHY

16a. *Preparatory Course: First Year.—Methods:* Gruenberg, *Elementary Violin Lessons*; Sevcik, *Op. 6, No. 1, 2, 3*; Sevcik, *Op. 1, No. 1 to 12. Etudes:* F. Hermann, *Op. 20, No. 1*; Wohlfahrt, *Op. 45, No. 1*; R. Hofmann, *Op. 25, Book 1. Compositions:* Oskar Rieding, *Romance G Major*; Rieding, *Polonaise*; Carl Busch, *Polonaise A Major*; Sitt, *Romance Op. 26, No. 5*; Beethoven, *Sonata, Op. 17. I, II; (no credit).*

<sup>1</sup>Students who major in voice and who are taking Music 15 are required to take Music 28.

<sup>2</sup>Since it is undesirable and impossible to establish a set course for all students, the course outline given above must be taken only as indicating the general scope of the work required of each student.

Each year, before registration, students are requested to have their instruments inspected by a reliable repairer.



16b. *Preparatory Course: Second Year.*—*Methods:* Gruenberg, *Foundation Exercises*, No. 1 to 80; Sevcik, *Op. 1*, No. 20, 21, 22. *Etudes:* Kayser, *Op. 20*, Book 1; Wohlfahrt, *Op. 54*; Alard, *Op. 10*, Book 1. *Compositions:* *Album of Twenty-five Pieces* by Lehmann; Seitz, *Concertino*, No. 2, G Major; *Concertino*, No. 5, D Major; Huber, *Concertino*, No. 4, G Major. I, II; (no credit).

16c. *Preparatory Course: Third Year.*—*Methods.* Gruenberg, *Foundation Exercises*, No. 81 to 117; Schradieck, *Scales*; Sevcik, *Op. 1*, No. 13 to 19. *Etudes:* Kayser, *Op. 20*, Book 2; Dont, *Op. 37*, *Exercises preparatory to Kreutzer*; Wohlfahrt, *Op. 74*, Book 2. *Compositions:* Seitz, *Concertino*, No. 1, D Major; No. 3, G Minor; No. 4, D Major; Seybold, *Polonaise*, *Op. 100*; Allen, *Polonaise*, *Op. 7*; Jensen, *Romance D Major*; Lachner, *Tarentella*, *Op. 93*, No. 2; Schubert, *Sonatina*, *Op. 137*. I, II; (no credit).

17. *First Year.*—*Technical Problems:* David *Violin School*, Part II, *Exercises 64 to 93*; Gruenberg, *Foundation Exercises*, No. 118 to 159; Schradieck, *Violin Technics* No. 1 to 14. *Etudes:* Kreutzer, *Forty-two Etudes*, including No. 20; E. Herrmann, *Double-stopping Exercises*, Book 1; Sevcik, *Preparatory Double-stopping Exercises*, *Op. 9*. *Compositions:* Mozart, *Sonatas* (selected); Accolay, *Concerto*, No. 1, A Minor; Dvorak, *Sonatina*, *Op. 100*; Gossic, *Gavotte*; Herbert, *Canzonetta*, *Op. 12*, No. 4; Beethoven, *Menuetto*, No. 2, G Major, I, II; (6).

17a. *One year.*—The first year's work as a minor subject by senior collegiate students majoring in piano or voice. I, II; (2).

18. *Second Year.*—*Problems:* David, *Violin School*, Part II; Sevcik, *Op. 1*, Part III; Gruenberg, *Foundation Exercises*, No. 160 to 176; Singer, *Exercises for developing independence of fingers*. *Etudes:* Continuation of Kreutzer, *Etudes*; Libon, *Caprices* *Op. 15*; Alard, *Ten Etudes brillantes*. *Op. 16*. *Compositions:* Beethoven, *Sonatas* (selected); Bruch, *Kol Nidrei*, *Op. 47*; Drdla, *Souvenir*; Svendsen, *Romance* *Op. 26*; D. van Goens, *Scherzo*, *Op. 12*, No. 2; Schubert-Remenyi, *Serenade*; Francois Schubert, *The Bec*, *Op. 13*, No. 9; I, II; (6).

19. *Third Year.*—*Problems:* David, *Violin School*, Part II; Sevcik, *Op. 8*, *Shifting Exercises*; Sevcik, *Op. 2 and 3*, *Forty Variations for the Bow*; Gruenberg, *Foundation Exercises* No. 181 to 200. *Etudes:* Kreutzer *Etudes* from No. 30 to 40; Rodes, *24 Caprices*; Fiorillo, *36 Caprices*; Sevcik, *Op. 1*, Part IV; Rovelli, *12 Caprices*. *Compositions:* Bach, *Concerto* No. 1, A Minor; No. 2, E Major;

Beethoven, *Romances Op. 40 and 50*; Ch. de Beriot, *Scene de ballet, Op. 100*; *Concerto, Op. 104, No. 9*; Corelli, *La Folia Variations*; Mozart, *Concerto E flat Major*; Hauser, *Hungarian Rhapsody Op. 43. I, II*; (6).

20.<sup>1</sup> *Fourth Year.—Problems*: Sauret, *Technical Studies Op. 36*; Sevcik, *Op. 1, Special Technical Problems*; Sevcik, *Op. 2, Exercises in Bowing. Etudes*: Gavinies, *24 Matinees*; Paganini, *24 Caprices Op. 1*; Tartini, *Art of Bowing*; Vieuxtemps, *Six Studies, Op. 16. Compositions*: Gade, *Sonate, Op. 21*; Sjoegren *Sonate, Op. 24*; Rode, *Concerto No. 7*; Bruch, *Concerto Op. 26*; Rust, *Sonate No. 1*; Spohr, *Concerto Op. 47, No. 8*; Wieniawski, *Polonaise, Op. 21*; Mendelssohn, *Concerto E Minor. I, II*; (6).

#### VIOLONCELLO<sup>2</sup>

Assistant Professor SCHWARTZ

31a, 31b, 31c. *Preparatory Course*: Three years. At the conclusion of the course the student will be examined upon the following: DeSwert, *Cello Method*; Klengel, *Technical Studies*; Litolff, *Volkslieder Album*, two parts; Marx Markus, *Op. 40*; characteristic pieces. *I, II*; (no collegiate credit).

32. *First Year.—Dotzanert, Selected Studies*; Furino, *Polonaise*; Golterman, *Nocturnes*; Kengel, *Concertino. Op. 7. I, II*; (6).

33. *Second Year.—Lee Studies: Op. 31, No. 1*; Romberg, *Op. 42, 46, 65*; Golterman, *Concerto in G. I, II*; (6).

34. *Third Year.—Lee Studies: Op. 31. No. 2*; Golterman, *Concerto in D*; Klengel, *Concertstück in D. I, II*; (7).

#### PUBLIC SCHOOL MUSIC

Assistant Professor CONSTANCE BARLOW-SMITH

23a. *EAR TRAINING, FIRST YEAR.—Two hours a week*; required of all music students. *I, II*; (no credit).

23b. *EAR TRAINING, SECOND YEAR.—Two hours a week*; required of students in the Course in Music in the sophomore year, and of students in the course in Public School Music. *I, II*; (1).

<sup>1</sup>Students who major in violin and are taking Music 20 are required to take Music 28.

<sup>2</sup>Since it is undesirable and impossible to establish a set course for all students, the course outline given above must be taken only as indicating the general scope of the work required of each student.



24a. SIGHT SINGING, FIRST YEAR.—Two hours a week; required of students in the Course in Music in the sophomore year, and of students in the Course in Public School Music. *I, II*; (no credit).

24b. SIGHT SINGING, SECOND YEAR.—Two hours a week; required of students in the Course in Music in the junior year, and of students in the Course in Public School Music. *I, II*; (1).

25. METHODS OF TEACHING.—Elements of theory, eye and ear training, the limitations of the child-voice, selection of material, pedagogical presentations, appreciation work for the high school (Offered primarily for students who desire to teach music successfully in the public schools.) *I, II*; (4).

#### BAND, ORCHESTRA, AND ENSEMBLE WORK

21. UNIVERSITY ORCHESTRA.—Two-hour rehearsal once a week. *I, II*; (1). Professor MILLS

22. UNIVERSITY CHORAL SOCIETY.—One-hour rehearsal once a week. *I, II*; ( $\frac{1}{2}$ ). Professor MILLS

26. BAND INSTRUMENTS.—Wind instruments in band, orchestra, or solo work. *I, II*; (no credit). Mr. HARDING

27. ENSEMBLE CLASS.—Trios, quartets, and quintets by classical and modern composers. (Open to all students who are sufficiently advanced to undertake the course profitably.) *I, II*; no credit.

28. RECITAL.—Required of all students majoring in a practical subject. *I, (2)*; *II, (3)*.

#### PALEONTOLOGY

(See GEOLOGY 1a, 16, 18, 19, 20, 21.)

#### PHILOLOGY

(See CLASSICS, ENGLISH LANGUAGE AND LITERATURE, GERMANIC LANGUAGES AND LITERATURE, and ROMANCE LANGUAGES AND LITERATURE.)

#### PHILOSOPHY

(See also PSYCHOLOGY and EDUCATION.)

ARTHUR HILL DANIELS, Ph.D., *Professor*

BOYD HENRY BODE, Ph.D., *Professor*

QUEEN LOIS SHEPHERD, Ph.D., *Instructor*  
DENTON LORING GEYER, A.M., *Assistant*

*Honors*

Candidates for honors in philosophy must offer:

1. In the major subject, 24 hours, 6 of which must be in psychology.

2. Minors in either: psychology (at least 6 hours in addition to the amount of psychology required for the major) and any one other subject listed below; or any two subjects from the same group—

(a) Economics; history, political science; education; sociology.

(b) English; French; German; Greek; Latin.

(c) Botany; chemistry; mathematics; physics; zoology.

No course in any subject of the above groups may be counted for the minor requirement if it is excluded from the major requirement of its respective department.

Students who make philosophy a major should take at least one year of psychology. With the exception of 1 and 10, no course in philosophy may be taken before the completion of two years of university work.

1. LOGIC.—The principles of reasoning; detection of fallacies; evidence. *I*; (3). Professor BODE, Dr. SHEPHERD

*Prerequisite*: One year of university work.

1b. LOGIC.—(The same as 1.) *II*; (3).

Professor BODE, Dr. SHEPHERD

2. INTRODUCTION TO PHILOSOPHY.—The relation of philosophy to modern science; problems of philosophy; representative forms of philosophic theory. *II*; (3). Professor BODE

9. POLITICAL AND SOCIAL ETHICS.—Moral principles applied to political and social relations. *I*; (2). Professor DANIELS

[10. THE PHILOSOPHIC THOUGHT OF THE NINETEENTH CENTURY AS REFLECTED IN ENGLISH LITERATURE.—Wordsworth; Carlyle; Emerson; Tennyson; Browning; Arnold. *I*; (2). Not given, 1913-14. Professor BODE]

ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

3. ANCIENT AND MEDIEVAL PHILOSOPHY.—The development of speculative thought; Greek philosophers; the medieval period. *I*; (3). Professor DANIELS

*Prerequisite*: Three hours in philosophy.



4. HISTORY OF MODERN PHILOSOPHY.—Problems and conceptions in philosophy from Descartes to the present time. Selections from the masterpieces of this period. *II*; (3). Professor DANIELS

*Prerequisite:* Three hours in philosophy.

7. ETHICS.—The beginnings and growth of morality; leading conceptions of moral theory; typical social and economic problems of the present. *II*; (3). Professor DANIELS

*Prerequisite:* Three hours in philosophy.

8. ESTHETICS.—The appreciation of art and nature; place of such appreciation in life; primitive arts and appreciation; modifications of the esthetic (such as the sublime and the ugly); the fine arts. *I*; (3).

*Prerequisite:* An elementary course in philosophy or psychology.

11. PHILOSOPHY OF RELIGION.—The philosophical interpretation of religious consciousness; various religious concepts: God; revelation; inspiration, dogma; faith; prayer; immortality; evil; morality and religion. *II*; (2). Professor DANIELS

*Prerequisite:* Senior or graduate standing; six hours in psychology, philosophy, or both.

15. THE BRITISH PHILOSOPHERS OF THE EIGHTEENTH CENTURY.—Locke, Berkeley, and Hume. *I*; (3). Professor BODE

*Prerequisite:* Philosophy 2 or 3 or 4.

16. AMERICAN PHILOSOPHY.—*II*; (3). Professor BODE

*Prerequisite:* Philosophy 15.

17. ADVANCED LOGIC.—*I*, (3). Dr. SHEPHERD

*Prerequisite:* Philosophy 1.

18. LOGICAL THEORY IN ITS BEARING ON PHILOSOPHICAL PROBLEMS.—*II*; (3). Dr. SHEPHERD

*Prerequisite:* Philosophy 17.

19. THE DEVELOPMENT OF RELIGIOUS THOUGHT IN THE EIGHTEENTH AND NINETEENTH CENTURIES.—*I*; (3). Dr. SHEPHERD

*Prerequisite:* Philosophy 2 or 3 or 4.

#### COURSES FOR GRADUATES

101. THE PHILOSOPHY OF PLATO AND ARISTOTLE.—*Twice a week*; *I*; (1 unit). Professor DANIELS

102. SEMINAR.—CONTEMPORARY PHILOSOPHY.—The Philosophy of Bergson. *Twice a week*. *I, II*; (1 unit). Professor BODE

103. SEMINAR: ETHICAL THEORY.—*Twice a week; I, II; (1 unit).* Professor DANIELS

[104. THE PHILOSOPHY OF DESCARTES, SPINOZA, AND LEIBNIZ.—*Twice a week; I; (1 unit).* Not given, 1913-14. Professor DANIELS]

[105. THE PHILOSOPHY OF KANT AND SCHOPENHAUER.—*Twice a week; II; (1 unit).* Not given, 1913-14. Professor DANIELS]

## PHYSICAL TRAINING

### FOR MEN

GEORGE A HUFF, *Director*

HARRY LOVERING GILL, *Instructor, Track*

ROY NEWTON FARGO, B.S., *Instructor and Director of the Men's Gymnasium*

EDWARD JOHN MANLEY, *Instructor, Swimming*

IRA THOMPSON CARRITHERS, A.B., *Instructor, Intra-Mural Athletics*

HENRY EUGENE PENGILLY, *Instructor, Fencing*

RALPH JONES, *Assistant*

1. GYMNASIUM PRACTISE.—Two hours' gymnasium drill each week. (Required of freshmen.) *I, II; (1); arrange time.*

Mr. FARGO

1a. PERSONAL HYGIENE.—Six lectures. Required in conjunction with Physical Training 1. *I.*

Dean CLARK

2. GYMNASIUM PRACTISE.—Two hours each week in advanced heavy apparatus work. *I, II; arrange time.*

Mr. FARGO

### FOR WOMEN

GERTRUDE EVELYN MOULTON, A.B., *Director*

VERNA BROOKS, A.B., *Instructor*

ANNA LUE HUGHITT, *Assistant*

DOROTHY RUTH SHOEMAKER, A.B., *Assistant*

MARION CHARLOTTE LANDEE, *Assistant*

ROSA-LEE GAUT, Mus.B., *Assistant*

7. PRACTISE.—Class work; individual experimentation in personal hygiene; individual corrective work; games. Required of freshmen. *I, II; (1).*

Miss MOULTON, Miss BROOKS, Miss HUGHITT, Miss SHOEMAKER, Miss LANDEE

8. PRACTISE.—(Continuation of 7. Second year, elective). *I, II; (1).* Miss BROOKS, Miss HUGHITT, Miss SHOEMAKER



9. HYGIENE.--Required of freshmen. *I*; (1).

Assistant Dean KYLE

10. TEACHERS' COURSE.—Third year. Theory, one hour; practise in the gymnasium and in the public playgrounds. *I, II*.

Miss MOULTON, Miss BROOKS

11. TEACHERS' COURSE.—Fourth year. Theory, one hour; practise in the gymnasium. *I, II*.

Miss HUGHITT

## PHYSICS

ALBERT PRUDEN CARMAN, D.Sc., *Professor*

CHARLES TOBIAS KNIPP, Ph.D., *Assistant Professor*

FLOYD ROWE WATSON, Ph.D., *Assistant Professor*

WILLIAM FREDERICK SCHULZ, E.E., Ph.D., *Assistant Professor*

JAKOB KUNZ, Ph.D., *Assistant Professor, Mathematical Physics*

ELMER HOWARD WILLIAMS, Ph.D., *Associate*

GLENN ALFRED SHOOK, A.B., *Instructor*

ORRIN HAROLD SMITH, A.M., *Assistant*

LLOYD THEODORE JONES, A.M., *Assistant*

OSCAR ALAN RANDOLPH, M.S., *Assistant*

EARLE HORACE WARNER, A.B., *Assistant*

SEBASTIAN KARRAR, A.M., *Assistant*

WILLIAM HARRY BAIR, B.S., *Assistant*

JONAS BERNARD NATHANSON, A.M., *Assistant*

### INTRODUCTORY COURSES FOR UNDERGRADUATES

1. GENERAL PHYSICS.—Lectures with class-room demonstrations; recitations; written exercises. (For sophomores in engineering, mathematics, physics, and chemistry.) *I*; (3), *II*; (2).

Professor CARMAN, Assistant Professor SCHULZ, Mr. SHOOK, Mr. SMITH, Mr. JONES, Mr. WARNER, Mr. BAIR

*Prerequisite*: Freshman mathematics; registration in Physics 3.

3. PHYSICAL MEASUREMENTS.—Laboratory experiments; quizzes in connection with Physics 1. *I, II*; (2).

Assistant Professor SCHULZ, Mr. SHOOK, Mr. SMITH, Mr. JONES, Mr. WARNER, Mr. BAIR

*Prerequisite*: Registration in Physics 1 or credit for the same.

- 2a. GENERAL PHYSICS.—Lectures, with class-room demonstra-

tions; recitations. (For students in courses in arts and science.)  
*I, II; (2½).*

Assistant Professor WATSON, Dr. WILLIAMS, Mr. KARRAR

*Prerequisite:* Completion of or registration in trigonometry (Mathematics 3 or 4); registration in Physics 2b.

2b. INTRODUCTORY LABORATORY PHYSICS.—Physical measurements. *I, II; (2½).* Dr. WILLIAMS, Mr. KARRAR

*Prerequisite:* Registration in Physics 2a.

6a. GENERAL PHYSICS.—Lectures, with class-room demonstrations; recitations. (For students in architecture.) *I, II; (2).*

Assistant Professor WATSON, Dr. WILLIAMS, Mr. KARRAR

*Prerequisite:* Trigonometry (Mathematics 3 or 4); registration in Physics 6b.

6b. INTRODUCTORY LABORATORY PHYSICS.—Physical measurements. *I, II; (2½).* Dr. WILLIAMS, Mr. KARRAR

*Prerequisite:* Registration in Physics 6a.

15. ELECTRICITY AND MAGNETISM.—Two recitations or lectures weekly, using Brooks and Poyser's *Electricity and Magnetism*; one laboratory exercise weekly. *I; (3).* Assistant Professor KNIPP

*Prerequisite:* Physics 1, 3; or 2a, 2b.

16. HEAT.—*I; (3).* Assistant Professor WATSON

*Prerequisite:* Physics 1, 3; or 2a, 2b.

17. LIGHT.—Recitations; laboratory. Edser's *Light*. *II; (2).*

Assistant Professor SCHULZ

*Prerequisite:* Physics 1, 3; or 2a, 2b.

18. TEACHERS' COURSE.—*I or II; (2).*

Assistant Professor WATSON

*Prerequisite:* Physics 1, 3; or 2a, 2b.

#### ADVANCED COURSES FOR GRADUATES AND UNDERGRADUATES

4. ELECTRICAL AND MAGNETIC MEASUREMENTS.—Exact electrical and magnetic measurements with accompanying theory. Laboratory exercises; discussions; recitations. *I, II; (2).*

Assistant Professor KNIPP, Mr. RANDOLPH, Mr. NATHANSON

*Prerequisite:* Physics 1, 3; or 2a, 2b; Mathematics 7, 9.

14. MECHANICS AND ADVANCED GENERAL PHYSICS.—Theoretical physics involving the calculus. Dynamics, with a brief introduction to thermodynamics. *I; (3).* Professor CARMAN

*Prerequisite:* A course in general physics, such as Physics 2a and 2b, or 1 and 3, and a course in calculus.



20a. LIGHT.—Special phenomena; modern theories; readings in texts of Drude, Wood, and Preston. Lectures; recitations. *I* or *II*; (2). Assistant Professor SCHULZ

*Prerequisite*: Physics 1, 3; or 2a, 2b; Mathematics 7, 9; or 8a.

20b. LIGHT.—Light measurements. Laboratory. *I* or *II*; (2 to 5). Assistant Professor SCHULZ

*Prerequisite*: Physics 1, 3; or 2a, 2b; Physics 17 desired.

[21. RECENT ADVANCES IN PHYSICAL SCIENCE.—Lectures illustrated by experiments. *II*; (1). Not given, 1913-14.

Assistant Professor KNIPP]

23. SOUND.—*II*; (2).

Assistant Professor WATSON

25. HEAT.—*II*; (2).

Assistant Professor WATSON

*Prerequisite*: Physics 1, 3; or 2a, 2b; Physics 16 advised.

[29. ELECTRICAL OSCILLATIONS.—Oscillating currents of both low and high frequencies, with particular attention in the second semester to the theory of wave telegraphy and telephony. *I*, *II*; (3). Not given, 1913-14. Professor CARMAN

*Prerequisite*: Physics 1, 3; Mathematics 7, 9.]

30a. INTRODUCTION TO THEORETICAL ELECTRICITY.—Electrical phenomena discussed with calculus methods. Lectures; recitations; occasional demonstrations. Foster and Porter's *Electricity and Magnetism*; *II*; (3). Assistant Professor KNIPP

30b. ELECTRICITY AND MAGNETISM.—Electrical measurements; self and mutual induction; standardization and calibration work; electrical discharge through gases. *I* or *II*; (2 to 5).

Assistant Professor KNIPP, Dr. WILLIAMS

31. SPECIAL PROBLEMS IN ADVANCED PHYSICAL MEASUREMENTS.—(2 or 3).

Professor CARMAN, Assistant Professors KNIPP, WATSON, and SCHULZ, Dr. WILLIAMS

#### COURSES FOR GRADUATES

The prerequisite for graduate work in physics is a college course in general physics with a year's laboratory course in introductory physical measurements. The student who is to do major work in physics should also have had additional courses in physics or teaching experience, unless the training in his minor subjects, mathematics or chemistry, has been strong and complete. He should also have a knowledge of French and German sufficient to use references in these languages. The courses named below

are those open for candidates for the Master's or Doctor's degree. A large part of the last year's work of the candidate for the Doctor's degree is investigational, along either the experimental or the theoretical side of physics. In addition to these major graduate courses, the courses in elementary dynamics, heat, light, electrical measurements, and introductory electrical theory, are arranged with certain additions for graduate credit. The "intermediate" courses on heat, light, and electricity and magnetism may be offered by students making a minor in physics.

[121. RECENT ADVANCES IN PHYSICAL SCIENCE.—Lectures illustrated by experiments on the more recent developments of physics. Written reports giving an original discussion of one or more of the topics discussed during the semester. Not given, 1913-14. *Once a week; I; ( $\frac{1}{2}$  unit).* Assistant Professor KNIPP]

123. SOUND.—Lectures and recitations. Rayleigh's *Sound*, Auerbach's *Akustik* and Barton's *Sound* are used as reference texts. *Twice a week; I, II; (1 unit).* Assistant Professor WATSON

124. CONDUCTION OF ELECTRICITY THROUGH GASES.—Laboratory problems with readings and discussions on the electrical conductivity of gases, ions and ionisation, the effect of a magnetic field, the motion of ions, spark discharge, cathode rays, Roentgen rays, canal or positive rays, and related phenomena of radioactivity. *Three times a week; I, II; (1 to 2 units).*

Assistant Professor KNIPP

126. PHYSICS COLLOQUIUM.—Weekly meetings of the instructors and advanced students of the department for the presentation and discussion of papers on current problems in Physics. Many of these papers are on investigations in progress in the laboratory and experimental demonstrations are used. Attendance on this colloquium is expected of all the graduate students tho it is not registered except in the cases of those making special reports on original investigations. *Once a week; I, II; ( $\frac{1}{4}$  to  $\frac{1}{2}$  unit).*

127. ELECTRON THEORY.—Seminar. The theories of the constitution of the atom, and the phenomena of the emission and absorption spectra. (Of especial interest to students in advanced chemistry.) *Twice a week; II; ( $\frac{1}{2}$  to 1 unit).*

Assistant Professor KUNZ

131. INVESTIGATION OF SPECIAL PROBLEMS.—Advanced laboratory or design and calculation. A problem worked out with the



advice and direction of the instructor. *Two to four times a week; I, II; (1 to 2 units).*

Professor CARMAN, Assistant Professors KNIPP, WATSON, SCHULZ and KUNZ, and Dr. WILLIAMS

132. MATHEMATICAL PHYSICS.—Special phases in theoretical physics.

(a) DYNAMICS.—*First part*: dynamics of a material system, determination of the center of gravity, moment of inertia and potential, potential theory, with applications in celestial mechanics. *Second part*: the principle of least action. Lagrange's equations, the theory of the top and its applications. The fundamental equations of elasticity, hydrodynamics, of the electromagnetic field and the second principle of thermodynamics for reversible processes deduced from the principle of least action. *Three times a week; I, II; (1 to 1½ units).* Assistant Professor KUNZ

[(b) ELECTRODYNAMICS.—Lectures; collateral reading. Problems from Jean's *Mathematical Theory of Electricity and Magnetism*; the potential theory: spherical harmonics, conjugate functions, and some theorems of the vector analysis; capacities, coefficients of self, and mutual induction; theory of absolute electrical measurements and the condenser discharge with its application in wireless telegraphy; Maxwell's theory with some applications in optics, such as the optical properties of metals; modern modifications of Maxwell's theory: the theory of relativity and the electromagnetic emission theory of light. (Continued in the following year in course 132d. Not given, 1913-14.)

Assistant Professor KUNZ]

[(c) THERMODYNAMICS.—Fundamental principles with applications to physical and chemical phenomena. Lectures; recitations. *Three times a week; I, II.* Not given, 1913-14.

Assistant Professor KUNZ]

(d) THEORY OF ELECTRICAL OSCILLATIONS AND CYLINDRICAL HARMONICS.—The conduction of heat and electricity through cylinders and cables leads to the introduction of cylindrical harmonics of real arguments. Their mathematical properties will be studied. Electrical oscillations along parallel wires, the vibrations from a Wertz oscillator and from antenna, the resonance phenomena between sending and receiving stations, the propagation of electrical waves over the surface of the earth and their absorption will be studied in the first part of the course. Cylindrical and

spherical harmonics will then be used for the solution of special problems, such as the resistance and self induction of wires. Applications of cylindrical harmonics will finally be made for phenomena in optics and radiation of light and heat. *Four times a week; I, II; (1 to 2 units).* Assistant Professor KUNZ

133. SEMINAR.—*Three or five times a week; I, II; (1 to 3 units).*

Professor CARMAN, Assistant Professors KNIPP, WATSON, SCHULZ, KUNZ

## PHYSIOLOGY

WILLIAM EDWARD BURGE, Ph.D., *Assistant Professor*

JOSEPH HOWARD BEARD, A.M., M.D., *Instructor*

ALMA JESSIE NEILL, A.B., *Assistant*

Of the courses outlined below, 1 and 2 are designed primarily for medical students, or for those intending to specialize in histology or physiology; course 4 is for students desiring a course in general physiology; courses 3, 5 may be taken by seniors in the medical course, and course 103 by graduate students.

The laboratory is equipped for the pursuance of research involving the use of apparatus necessary for physiological, histological, bacteriological, and chemical work.

1. HISTOLOGY.—Fundamental mammalian tissues; microscopic anatomy of the organs. Lectures and laboratory. (Full medical credit in histology.) *I; (5).* Assistant Professor BURGE, Dr. BEARD

*Prerequisite:* Physics 2a; Chemistry 1, 2, 3, 5a, 9, 9c; Zoology 2, 3.

2. EXPERIMENTAL PHYSIOLOGY.—Physiology of nerve and muscle; circulation; respiration; secretion; digestion; metabolism. Lectures and laboratory. (Full medical credit in physiology.) *II; (10).* Assistant Professor BURGE, Dr. BEARD, Miss NEILL

*Prerequisite:* The same as for Physiology 1.

3. UNDERGRADUATE THESIS.—(For undergraduates who wish a thesis course.)

4. GENERAL PHYSIOLOGY, CHEMICAL AND EXPERIMENTAL.—Lecture demonstrations; recitations; laboratory work. *I; (5).*

Assistant Professor BURGE, Dr. BEARD, Miss NEILL

*Prerequisite:* Chemistry 1; Zoology 1.

5. SPECIAL PHYSIOLOGY.—(For advanced students who wish to take up a special line of work not specified in one of the other



courses and not involving the preparation of a thesis.) Laboratory; conferences. *I, II*; (3 hours or more).

Assistant Professor BURGE, Dr. BEARD

*Prerequisite:* The consent of the head of the department.

#### COURSE FOR GRADUATES

103. RESEARCH.—*Once a week; I, II; (1 to 2 units).*

Assistant Professor BURGE, Dr. BEARD

### POLITICAL SCIENCE

(See also ECONOMICS, HISTORY, and SOCIOLOGY.)

JAMES WILFORD GARNER, Ph.D., *Professor*

\*JOHN ARCHIBALD FAIRLIE, Ph.D., *Professor*

WALTER FAIRLEIGH DODD, Ph.D., *Assistant Professor*

JOHN MABRY MATHEWS, Ph.D., *Associate*

ALFRED CHESTER HANFORD, A.M., *Assistant*

RUSSELL McCULLOCH STOREY, A.M., *Assistant*

#### Honors

For honors in political science:

1. The major of 24 hours in political science may, with the consent of the department, include courses in constitutional history (History 4 and 14), political philosophy (Philosophy 5), or not exceeding 6 hours in law.

2. One minor must be history, in which courses must be offered aggregating not less than 12 hours. The other minor may be economics, sociology, or philosophy, aggregating not less than 9 hours.

3. A reading knowledge of one modern language is advised.

#### COURSES FOR UNDERGRADUATES

Courses 1 and 3 are intended to furnish a general survey of the field of national, state, and local government in the United States, and should be taken by all students who expect to specialize in political science.

1. AMERICAN NATIONAL GOVERNMENT.—Historical development, organization, powers, limitations, and practical working of the national government in the United States. *I*; (3).

Professor GARNER, Dr. MATHEWS, Mr. HANFORD

*Prerequisite:* Thirty hours of university work.

3. STATE AND LOCAL GOVERNMENT.—Powers, obligations, and

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\*On leave, second semester.

rights of the states in the Federal Union; formation and admission of states; development of state constitutions; organization of state and local government; political methods. (A continuation of course 1; may be taken independently). II; (3).

Professor GARNER, Dr. MATHEWS, Mr. HANFORD

*Prerequisite:* Thirty hours of university work.

16. GOVERNMENT OF ILLINOIS.—Constitutional development; organization and administration of state and local government; the legislature; the executive; the judiciary; state officers and institutions; county, town, and municipal government. II; (2).

Professor GARNER, Assistant Professor DODD, Dr. MATHEWS

*Prerequisite:* Thirty hours of university work.

#### ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

(At least junior standing required)

4. MUNICIPAL GOVERNMENT.—The growth of cities; municipal organization and functions in the United States; the mayor and council; commission government; police, light, and water supply; city planning; urban transportation; municipal ownership and regulation of public utilities; charities; education. Lectures; assigned readings; reports. I; (3).

Professor FAIRLIE

*Prerequisite:* One course in political science or Economics 1.

5. CONSTITUTIONAL LAW OF THE UNITED STATES.—The judicial interpretation of the constitution of the United States; judicial power to declare laws unconstitutional; separation of governmental powers; relation between state and national governments; fundamental rights under the constitution (due process of law, contract); territories and dependencies; national powers with respect to taxation, commerce; jurisdiction of United States courts. I; (4).

Assistant Professor DODD

*Prerequisite:* Political Science 1.

6. INTERNATIONAL LAW.—The development of the law of nations; its nature, source, and present status; the equality of states; the doctrine of intervention; the laws of war and peace; the rights and duties of neutrals; the arbitration movement. Lectures; assigned readings; reports. I; (3).

Professor GARNER

*Prerequisite:* Graduate or senior standing, or junior standing with 6 hours of history, 5 hours of political science.

7. AMERICAN DIPLOMACY.—Genesis and present organization of the Department of State; the diplomatic service; the treaty-making power; the methods and traditional principles of the foreign pol-



icy of the United States; historical review of the principal diplomatic controversies between the United States and foreign powers from the foundation of the government to the present time; the rise of the United States to the position of a world power. *II*; (3). Given in 1913-14 and in alternate years, alternating with Course 18.

Dr. MATHEWS

*Prerequisite:* Junior standing and Political Science 1 or History 3.

9. PRINCIPLES OF JURISPRUDENCE.—The nature of law; historical development of Roman and English legal systems; English common law in the United States; sources of law and relation between statutes and judicial decisions; brief discussion of the various branches of law (crime, tort, contract) and their relation to one another. *I*; (3).

Assistant Professor DODD

*Prerequisite:* Course 1 or its equivalent; junior standing.

10. ADMINISTRATIVE LAW IN THE UNITED STATES.—Separation of governmental powers and delegation of legislative power; federal and state administrative organizations; powers of administrative officers; methods of enforcing governmental commands; remedies of the individual against unlawful action of public officials (civil suit, criminal action, mandamus, injunction). *II*; (3).

Assistant Professor DODD

*Prerequisite:* Course 5 and at least junior standing.

11. CONSTITUTIONAL ASPECTS OF SOCIAL AND INDUSTRIAL PROBLEMS.—The police power for the protection of the public safety, health, and welfare; constitutional limitations upon legislation concerning the public health and safety, the control of public service corporations and combinations of capital, and labor legislation. *II*; (3).

Assistant Professor DODD

*Prerequisite:* Senior standing and at least 5 hours in political science; Political Science 5, or Economics 12 recommended.

[12. NATIONAL ADMINISTRATION.—Administrative powers of the President and Congress; executive departments and administrative services of the national government; judicial administration and the relation of the courts to the executive authorities. Not given, 1913-14. *II*; (3).

Professor FAIRLIE

*Prerequisite:* Political Science 1.]

13. STATE ADMINISTRATION IN THE UNITED STATES.—The administrative position of the governor, and the organization of the state administrative departments; state administrative disintegra-

tion and the influence of the diffusion of executive power upon the enforcement of state law; organization and powers of state boards, commissions, and quasi-judicial tribunals; tendencies toward centralization in the administration of taxation, education, and other state functions; methods of control over state administrative officers. *I*; (3). Dr. MATHEWS

*Prerequisite:* Political Science 3 or its equivalent.

14. POLITICAL PARTIES AND METHODS.—Development of political parties; party organization and methods in the United States and Great Britain; recent legislation on primary elections and corrupt practises. *I*; (2). Professor FAIRLIE

*Prerequisite:* One course in political science.

[18. WORLD POLITICS.—The main currents of international politics in Europe since the Treaty of Berlin; the balance of power, the mutual relations and present grouping of the principal European states, and the extension of their interests in the Near and Far East; the colonial expansion of the United States since the Spanish War, and the present position of the United States as a world power. *II*; (3). Dr. MATHEWS

*Prerequisite:* Junior standing and History 1; History 20 recommended.]

21. BRITISH GOVERNMENT.—Political institutions in the United Kingdom and the British possessions: the Crown; the Cabinet; the House of Commons; the House of Lords; the party system; the courts of law; local government; government in the Crown Colonies and the self-governing colonies; recent developments and proposed changes. (Open to graduate students and to seniors who have had six hours in political science.) *I*; (3).

Professor FAIRLIE

22. CONTINENTAL EUROPEAN GOVERNMENTS.—The national political systems of France, Germany, Austria-Hungary, Italy, and Switzerland; constitutional beginnings; political organizations; methods of legislation and administration; constitutional guarantees for the protection of individual rights. (Open to graduate students and seniors who have had six hours in political science; History 20 recommended.) *II*; (3). Professor GARNER

28. PROBLEMS OF CONTEMPORARY POLITICS.—Some larger questions of present day politics, domestic and foreign: the initiative and the referendum; proportional representation; state socialism; universal suffrage; electoral reform; local self-government; judi-



cial reform, parliamentary government, the Monroe Doctrine. Reports by individual members of the class and general discussion. *II; (2).* Professor GARNER

*Prerequisite:* Senior or graduate standing.

#### COURSES FOR GRADUATES

101. HISTORY OF POLITICAL THEORIES.—Development and history of ancient, medieval, and modern political thought; political theories of Aristotle, Machiavelli, Hobbes, Locke, Rousseau, Montesquieu, and others; evolution of American political ideas. Given in 1913-14 and in alternate years, alternating with Course 102. *Twice a week; (1 unit).* Professor GARNER

[102. THE NATURE OF THE STATE.—The principles, methods, and relations of political science; the origin, nature, forms, and functions of the state; sovereignty and liberty; citizenship and nationality; constitutions; principles of political organization. Given every other year, alternating with Course 101. Not given, 1913-14. *Twice a week; I; (1 unit).* Professor GARNER]

103. SEMINAR IN POLITICAL SCIENCE AND PUBLIC LAW.—Special problems; reports; discussions and criticism. The research work of candidates who are writing theses is under the direction of some instructor, to whom they report frequently. *Once a week; I, II.*

[104. MUNICIPAL ADMINISTRATION.—Municipal organization and functions in the United States and Europe: the relations between city and state; local organization; political methods and reform movements; police and health administration; public works; municipal ownership; public regulation of public utilities. The topics vary from year to year. Lectures; reading; special reports. Not given, 1913-14. *Three times a week; II; (1½ units).* Professor FAIRLIE]

105. SPECIAL TOPICS IN CONSTITUTIONAL LAW OF THE UNITED STATES.—Subject for 1913-14: Judicial Power over Legislation. *Twice a week; II; (1 unit).* Assistant Professor DODD

#### PSYCHOLOGY

MADISON BENTLEY, Ph.D., *Professor*

ARTHUR HOWARD SUTHERLAND, Ph.D., *Associate*

CHRISTIAN ALBAN RUCKMICH, Ph.D., *Instructor*

THOMAS FRANKLIN VANCE, Ph.D., *Assistant*

The departmental laboratories occupy 23 rooms. They make provision for (1) research, (2) undergraduate instruction in drill-courses, (3) demonstrations in the lecture-room, (4) the testing of mental capacity and of mental defect, and (5) the study of the animal mind. The laboratory contains standard equipment and such special pieces as apparatus for spectroscopical problems, for chronoscopic methods, and for studies in memory and association. Special provision is made for optical and acoustical experiments. There are five dark-rooms, installations for electric and pneumatic intercommunication between rooms, supplies of alternating and direct current, gas, and compressed air. Special requirements of investigational studies are met either within the laboratory's shop or by requisition upon the American and European makers of apparatus. The departmental library contains files of foreign and American journals. It includes a working collection for experimental and historical studies. A conference-room is provided for the use of advanced students.

### *Honors*

Candidates for honors in psychology must offer:

1. A major group of 24 semester hours. This group is to be made up from courses announced in psychology; except that 6 hours within the group may be chosen from one or more of the following subjects: Philosophy 1, 2, 4; Physics 1, 2a, 2b, 3; Zoology 1, 3, 13, 13a; Animal Husbandry 30. At least 6 of the hours in psychology must be taken in laboratory courses.

2. Two minor groups. These groups are to be selected from subjects which are related to psychology, such as physiology, education, zoology, neurology, philosophy, genetics, sociology, and physics. The constitution of each of the minor groups will be determined by consultation with the department of psychology. Each group must contain at least nine semester hours, and both groups at least twenty-four hours.

The more elementary courses are designed to contribute to the general cultivation of undergraduate students, to illustrate scientific method at large, and to lay the foundations of the mental sciences. The intermediate courses are in part informative and in part cultural. Their primary aim is to set forth the facts and the laws of mind. The conduct of research looks first toward the extension of the field of psychology. The more advanced instruction does not overlook, however, the needs of senior and graduate students whose chief interest lies in related disciplines.



## COURSES FOR UNDERGRADUATES

1. INTRODUCTION TO PSYCHOLOGY.—The standpoint and the methods of psychology; the simple processes, attention and perception. Emotive and volitional complexes; association, memory, action and thought. Lectures; sectional meetings. *I*; (3).

Professor BENTLEY, Dr. SUTHERLAND, Dr. RUCKMICH, Dr. VANCE  
*Prerequisite*: One year of university work.

2. GENERAL PSYCHOLOGY.—Mental inheritance, habit, custom, and fashion; the relations of psychology to the biological and social sciences; comparative and genetic psychology, and the psychology of the abnormal; applications of psychology to the arts and professions. *II*; (3).

Professor BENTLEY, Dr. SUTHERLAND, Dr. RUCKMICH, Dr. VANCE  
*Prerequisite*: Psychology 1.

3. LABORATORY PRACTISE.—Scientific method; classical experiments in the fields of sensation, affection, attention, and action. (Introductory to the pursuit of special problems and to psychological research.) *I or II*; (2).

Professor BENTLEY, Dr. RUCKMICH, Dr. VANCE

4. LABORATORY PRACTISE (INTERMEDIATE.)—Experiments in memory, association, learning, and thought. A part of the term may be devoted either to the material methods of psychophysics or to the solution of a small qualitative problem. *I or II*; (2).

Professor BENTLEY, Dr. RUCKMICH, Dr. VANCE

## COURSES FOR UNDERGRADUATES AND GRADUATES

5. COMPARATIVE PSYCHOLOGY.—Mind in the various animal forms; the psychological implications of the bionomic doctrine of descent; a comparison of human and animal minds; criticism of current literature. (Recommended to students who intend to do advanced work either in animal psychology or in the study of behavior.) Laboratory exercises. *I*; (2).

Professor BENTLEY, Dr. RUCKMICH, Dr. VANCE

*Prerequisite*: Psychology 1.

6. COMPARATIVE PSYCHOLOGY: ADVANCED LABORATORY.—Individual studies in animal psychology. *II*; (2-4).

Professor BENTLEY, Dr. RUCKMICH, Dr. VANCE

*Prerequisite*: Psychology 1 and 5.

7. THE IMAGE AND IMAGINATION.—Methods of studying the

image and the imaginative functions; types of imagery. Lectures; reading; demonstrations. *I*; (2). Dr. SUTHERLAND

*Prerequisite:* Psychology 1 and 2.

8. MEMORY AND ASSOCIATION.—Recollection, recognition, reproduction; forms of the associative consciousness; experimental methods. Demonstrations; lectures; practise. *II*; (2).

Dr. SUTHERLAND

*Prerequisite:* Psychology 1 and 2.

10. GERMAN READING.—Translation into English of H. Ebbinghaus: *Abriss der Psychologie*. *I*; (1). Professor BENTLEY

11. STUDIES IN MENTAL DEVELOPMENT.—Observation and description, at first-hand, of developmental changes in mind; literature of skill and efficiency. *I*; (3). Dr. SUTHERLAND

*Prerequisite:* Psychology 1 and 2.

12. MINOR PROBLEMS (ADVANCED LABORATORY).—The formulation of methods suitable to new problems, and the conduct of small investigations. At the discretion of the department, studies in the current literature or the presentation of essays upon historical subjects may be substituted for laboratory problems. *I, II*; (2-5).

Professor BENTLEY, Dr. SUTHERLAND, Dr. RUCKMICH, Dr. VANCE

*Prerequisite:* Psychology 1, 2, 3.

15. THE PSYCHOLOGICAL BASIS OF MUSIC.—An elementary course. Summary of experimental and theoretical literature on the origin of music, harmony, melody, rhythm, consonance, tonal quality; psychology of musical appreciation and performance. *I, II*; (2). Dr. RUCKMICH

17. THE HISTORY OF PSYCHOLOGY.—The rise and development, in recent times, of the science of psychology. Lectures and reading. *II*; (2). Dr. SUTHERLAND

*Prerequisite:* Psychology 1, 2, and one other course.

#### COURSES FOR GRADUATES

103.—RESEARCH.—Advanced problems; theses offered for graduate degrees. *I, II*.

Professor BENTLEY, Dr. SUTHERLAND, Dr. RUCKMICH

105.—SEMINAR.—Weekly meetings for the discussion of current topics considered in their historical setting. *I, II*.

Professor BENTLEY



## PUBLIC SPEAKING

(See RHETORIC under ENGLISH LANGUAGE AND LITERATURE.)

## RAILWAY ENGINEERING

*\*WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., Director, Professor**EDWARD CHARLES SCHMIDT, M.E., Professor**JOHN McBEATH SNODGRASS, B.S., Assistant Professor, Railway Mechanical Engineering**ALONZO MORRIS BUCK, M.E., Assistant Professor, Railway Electrical Engineering**ARTHUR FRANCIS COMSTOCK, C.E., Associate, Railway Civil Engineering**ROBERT BROWDER KELLER, B.S., First Assistant, Engineering Experiment Station**HAROLD HOUGHTON DUNN, B.S., Assistant, Engineering Experiment Station*

Railway Civil Engineering—Courses 31-50.

Railway Electrical Engineering—Courses 61-65.

Railway Mechanical Engineering—Courses 1-30.

## RAILWAY MECHANICAL ENGINEERING

1. LOCOMOTIVES.—The mechanics of the locomotive; problems relating to its operation; the engine and valve mechanism; counterbalancing; the determination of tractive effort; tonnage rating problems; the development of types. (The course is co-ordinated with courses 2 and 8.) *I*; (2). Professor SCHMIDT

*Prerequisite:* Theoretical and Applied Mechanics 9; Mechanical Engineering 3, 15, 16.

2. LOCOMOTIVE DESIGN.—Calculations and designs of engine and boiler details; current standards and proportions. *I*; (3).

Assistant Professor SNODGRASS

*Prerequisite:* Mechanical Engineering 3, 4, 5, 15, 16; Theoretical and Applied Mechanics 9; registration in Railway Engineering 1.

3. SHOPS AND AUXILIARY EQUIPMENT.—The design and equipment of railway shops and roundhouses; their management and organization, supplemented by shop visits; water purifying plants and pumping stations; air-brake equipment. *II*; (2).

Assistant Professor SNODGRASS

*Prerequisite:* Mechanical Engineering 3, 4; Chemistry 1b or 1a.

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*\*On leave.*

4. LOCOMOTIVE PERFORMANCE.—Locomotive boiler and engine performance; the influence upon performance of combustion rate, steam pressure, speed, cut-off and other valve relations, compounding, and superheating. *I*; (2). Assistant Professor SNODGRASS

*Prerequisite:* Theoretical and Applied Mechanics 8; Mechanical Engineering 3, 4, 5, 15, 16.

7. ADVANCED DESIGN.—Problems in locomotive and car design. *II*; (3). Professor SCHMIDT, Assistant Professor SNODGRASS

*Prerequisite:* Railway Engineering 2.

8. DYNAMOMETER CAR TESTS.—Investigation of train resistance and locomotive tractive effort, by the use of the railway test car. Discussion and exemplification of the application of the results to the determination of tonnage ratings. *I*; (2). Mr. KELLER

*Prerequisite:* Open to seniors in railway courses only.

10. SEMINAR.—Discussion of current topics and review of railway journals. Assigned topics and reports. *I, II*; (1).

Professor SCHMIDT, Assistant Professor BUCK, Assistant Professor SNODGRASS, Mr. COMSTOCK

*Prerequisite:* Open to seniors in railway courses only.

11. RAILWAY TESTS.—Train resistance on steam roads and work with the electric test car. (For students in other departments of the College of Engineering.) *II*; (2).

Assistant Professor SNODGRASS, Assistant Professor BUCK, Mr. KELLER

*Prerequisite:* Mechanical Engineering 3; Electrical Engineering 6.

30. THESIS.—Independent solution of some problem or investigation of some subject. The thesis may consist of a design or of an original experimental investigation, or it may be the analysis and discussion of data already in existence. *II*; (3).

Professor SCHMIDT, Assistant Professor SNODGRASS, Assistant Professor BUCK, Mr. COMSTOCK

#### RAILWAY CIVIL ENGINEERING

31. RAILWAY YARDS AND TERMINALS.—The theory and practise of the proper location of frogs and switches; the design of yards to insure efficiency of operation; the details of track construction. *II*; (3). Mr. COMSTOCK

*Prerequisite:* Civil Engineering 4.



32. RAILWAY STRUCTURES.—The details of railway structures; problems in original design. *II*; (2). Mr. COMSTOCK

*Prerequisite:* Civil Engineering 4 and 5.

33. ECONOMIC THEORY OF RAILWAY LOCATION.—The influence of location upon the net earning power of a line of railway. *I*; (4).

Mr. COMSTOCK

*Prerequisite:* Civil Engineering 4; Theoretical and Applied Mechanics 7, 8.

35. RAILWAY SIGNALING.—Block signaling on single and double track lines; interlocking systems for terminals; details of construction and of operation. *I*; (1). Mr. COMSTOCK

*Prerequisite:* Civil Engineering 4.

50. SEMINAR.—Discussion of current topics; review of railway journals; assigned topics and reports. *I, II*; (1).

Professor SCHMIDT, Assistant Professor SNODGRASS, Assistant Professor BUCK, Mr. COMSTOCK

#### RAILWAY ELECTRICAL ENGINEERING

61. TRACTION.—Electric railway equipment and practise. The work of the course is exemplified by the use of the electric test car owned by the department. (For students other than those in railway electrical engineering.) *II*; (3). Assistant Professor BUCK

*Prerequisite:* Theoretical and Applied Mechanics 8; Electrical Engineering 16, 6; or 3, 24.

63. RAILWAY LABORATORY AND ROAD TESTS.—Electrical laboratory problems and electric car and dynamometer car tests to determine train resistance and power consumption for electric cars and steam trains. *II*; (3). Assistant Professor BUCK

*Prerequisite:* Railway Engineering 64; Electrical Engineering 24.

64. ELECTRIC RAILWAY PRACTISE.—The types of electric railway systems and apparatus; the engineering problems met with in preliminary road location, in the selection of electrical equipment, and in its operation and maintenance. *I*; (3).

Assistant Professor BUCK

*Prerequisite:* Theoretical and Applied Mechanics 8; Electrical Engineering 5 and 24.

65. ELECTRIC RAILWAY PRACTISE.—The problem of steam road electrification. *II*; (3). Assistant Professor BUCK

*Prerequisite:* Railway Engineering 64.

COURSES FOR GRADUATES

Entrance upon graduate work in railway engineering presupposes the full undergraduate course in that subject.

102. LOCOMOTIVE DESIGN.—Modern practise concerning steam pressure, compounding, superheating. Professor SCHMIDT

106. LOCOMOTIVE OPERATION.—Determination of train resistance and locomotive tractive effort; application of these and other matters in the establishment of tonnage ratings. Professor SCHMIDT

108. ELECTRIC RAILWAY PRACTISE.—The design, selection, operation, and maintenance of electric railway equipment; central station, sub-station, rolling stock, and line equipment.

Assistant Professor BUCK

110. RAILWAY LOCATION.—The effects of the location of a railway upon its earning capacity; the engineering and economic problems met with in original location, as well as in the relocation and reduction of grades of existing lines.

Mr. COMSTOCK

RHETORIC

(See ENGLISH.)

ROMANCE LANGUAGES AND LITERATURE\*

THOMAS EDWARD OLIVER, Ph.D., *Professor*

†DAVID HOBART CARNAHAN, Ph.D., *Associate Professor*

JOHN DRISCOLL FITZ-GERALD, II., Ph.D., *Assistant Professor*

JEAN-BAPTISTE BECK, Ph.D., *Assistant Professor*

†DAVID SIMON BLONDHEIM, Ph.D., *Assistant Professor*

ARTHUR ROMEYN SEYMOUR, Ph.D., *Associate*

LESLIE MORTON TURNER, D. de l'Université, *Associate*

OLIN HARRIS MOORE, Ph.D., *Instructor*

JOHN RAYMOND SHULTERS, A.M., *Assistant*

THOR GRIFFITH WESENBERG, A.M., *Assistant*

CONRAD JOSEPH EPPELS, *Assistant*

CHARLES SEROPHIN CARRY, B.ès L., *Assistant*

LOUIS ALLEN, A.B., *Assistant*

\*The department is administered by the following committee: Dean Kendric C. Babcock, Chairman, Professor Thomas E. Oliver, Assistant Professor John D. Fitz-Gerald.

†On leave.



## FRENCH

*Honors*

Candidates for honors in French must offer :

1. A major in French.
2. One minor of at least 12 hours in Latin. This is to be in addition to three years of high school Latin.
3. One minor of at least 10 hours in one of the following subjects: German, excluding German 1 and 3; Spanish, excluding Spanish 1; Italian; English literature, excluding English 1; history; philosophy.

## COURSES FOR UNDERGRADUATES

1. ELEMENTARY COURSE.—Grammar; pronunciation; reading of simple modern authors; composition; conversation. *I, II; (4).*

Dr. MOORE, Dr. TURNER, Mr. SHULTERS, Mr. EPPELS, Mr. CARRY, Mr. ALLEN

2. MODERN PROSE, POETRY, AND DRAMA.—Rapid reading of modern authors; advanced syntax and composition. *I, II; (4).*

Professor OLIVER, Dr. MOORE, Dr. TURNER, Mr. WESENBERG  
*Prerequisite:* French 1.

2a. SECOND-YEAR CONVERSATION.—Mainly classroom work. (Does not count toward a major in French.) *I, II; (1).*

Mr. EPPELS

*Prerequisite:* French 1, with a grade of at least 85; registration in French 2.

3. INTERMEDIATE PROSE COMPOSITION AND CONVERSATION.—Conducted entirely in French, giving facility in idiomatic expression in writing and speaking. Reading; themes; talks upon France and French life. *I, II; (2).*

Mr. CARRY

*Prerequisite:* French 2.

NOTE: This course is required of those who expect the recommendation of the department to teach French.

4. ADVANCED COMPOSITION.—A continuation of French 3 with special emphasis upon advanced syntax. *I, II; (2).*

Assistant Professor BECK

*Prerequisite:* French 3.

9. MASTERPIECES OF ROMANCE LITERATURES IN ENGLISH TRANSLATIONS.—Dante, Petrarch, Boccaccio, Cervantes, Rabelais, Mon-

taigne, Moliere, and other writers. (This course may not be counted toward a major in French.) *I, II; (2).* Dr. TURNER

*Prerequisite:* Two years of university work.

22. MODERN NOVEL AND DRAMA.—The novel and drama in France from the beginning of the nineteenth century to the present time. Lectures; reports on collateral reading. *I, II; (3).*

Dr. TURNER

*Prerequisite:* French 2.

25. COURSE FOR TEACHERS.—The various methods of teaching French in this country and abroad; actual contact with class-room problems. *I; (2).*

Dr. SEYMOUR and other members of the department

*Prerequisite:* Twenty-four hours' credit in French.

28. SENIOR THESIS.—Intended primarily for candidates for honors in French, but open to other seniors. *I, II; (1).*

The various members of the department

#### ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

[10. GENERAL SURVEY OF FRENCH LITERATURE.—Special periods and authors. The main currents of French literature from the beginning to the present time. *I, II; (3).* Not given, 1913-14.

Associate Professor CARNAHAN

*Prerequisite:* French 22 or 24.]

23. MODERN FRENCH POETRY.—Declamation and interpretation of French poetry from Rousseau to the present time; recitations and prosodical analyses of the different categories of such poems. Conducted in French. *I, II; (3).* Assistant Professor BECK

*Prerequisite:* Twenty hours' credit in French and the consent of the instructor.

24. SEVENTEENTH AND EIGHTEENTH CENTURIES.—The greater masterpieces of the seventeenth and eighteenth centuries in France. *I, II; (3).*

Professor OLIVER

*Prerequisite:* French 2.

[26. FRENCH LITERARY CRITICISM.—History of criticism in antiquity and in the Italian Renaissance; the principal French critics; the seventeenth and the nineteenth centuries in connection with the development of classicism and romanticism. *I, II; (2).* Not given, 1913-14.

Assistant Professor BLONDHEIM

*Prerequisite:* Three years of French, and senior standing]



## COURSES FOR GRADUATES

Before entering upon the study of the Romance languages for an advanced degree, the candidate should have had a total of at least thirty hours of college work in these languages. Eighteen of these hours must be in one of the three languages, French, Italian, or Spanish, but no candidate will be received who has not had at least twelve hours of French. In addition a candidate should have good training in Latin, and be able to read ordinary German prose.

102. OLD FRENCH READINGS.—Reading and interpretation of representative masterpieces in Old French literature with emphasis upon Old French syntax. Collateral reading will include other masterpieces and selected chapters in the history of Old French literature. For such students as may desire it, the collateral work may consist of the elements of Old French phonology and morphology. *Twice a week; I, II; (1 unit).* Professor OLIVER

[103. OLD FRENCH, PHONOLOGY AND MORPHOLOGY.—Development of Old French from Vulgar Latin. *Twice a week; I, II; (1 unit).* Not given, 1913-14. Assistant Professor BLONDHEIM]

[108. VULGAR LATIN AND MEDIEVAL LATIN.—The development of the Latin language from the earliest times to the Carolingian epoch. Study of medieval paleography. *Twice a week; I; (1 unit).* Not given, 1913-14. Assistant Professor BECK]

[109. HISTORY OF FRENCH LITERATURE IN THE MIDDLE AGES, FROM THE CAROLINGIAN EPOCH TO GUILLAUME DE MACHAULT.—Reading of texts. Reports on problems concerning the general culture and civilization of the Middle Ages. *Twice a week; II; (1 unit).* Not given, 1913-14. Assistant Professor BECK]

110. INTRODUCTION TO THE HISTORICAL STUDY OF THE ROMANCE LANGUAGES, ESPECIALLY OF OLD PROVENÇAL.—Phonology, morphology, syntax, and paleography. *Twice a week; I; (1 unit).*

Assistant Professor BECK

111. HISTORY OF OLD PROVENÇAL LITERATURE.—Its origin and its influence on the other Romanic literature; the poetry of the troubadours; reading of the texts from photographic reproductions and from printed materials with a view to preparing critical editions of such texts. *Twice a week; II; (1 unit).* Assistant Professor BECK

112. INTRODUCTION TO ROMANCE PHILOLOGY.—Phonology. Special emphasis upon the problems which confront the teacher of French, Italian, and Spanish. *Once a week; I, II; (½ unit).*

Assistant Professor FITZ-GERALD

[113. INTRODUCTION TO ROMANCE PHILOLOGY.—Morphology. Continuation of Course 112. *Once a week; I, II; (1 unit.)* Not given, 1913-14. Assistant Professor FITZ-GERALD]

125. SEMINAR. Research and thesis work in the field of Romance languages. *I, II; (2 units).*

The various members of the department

## ITALIAN

### COURSES FOR UNDERGRADUATES

1. ELEMENTARY COURSE.—Grammar; composition; conversation; reading of simple modern authors. *I, II; (3).* Dr. MOORE  
*Prerequisite:* One year of university work in French, Spanish, or Latin.

2. ITALIAN LITERATURE.—*First semester:* Rapid reading from the works of the Italian writers of the nineteenth century. *Second semester:* Dante; Petrarch; Boccaccio. *I, II; (2).* Dr. MOORE  
*Prerequisite:* Italian 1.

## SPANISH

### COURSES FOR UNDERGRADUATES

1. ELEMENTARY COURSE.—Grammar; pronunciation; easy reading; composition; conversation. *I, II; (4).*

Assistant Professor FITZ-GERALD, Dr. SEYMOUR, Mr. WESENBERG

2. CONVERSATION AND COMPOSITION.—Conversation; composition; reading of modern prose. The vocabulary of everyday life is emphasized. Commercial correspondence. *I, II; (3).*

Dr. SEYMOUR

*Prerequisite:* Spanish 1.

3. GENERAL INTRODUCTION TO SPANISH LITERATURE.—Rapid reading of selected works of representative modern authors, and of the more important writers of the seventeenth century. *I, II; (2).*

Assistant Professor FITZ-GERALD

*Prerequisite:* Spanish 1.

4. ADVANCED CONVERSATION AND COMPOSITION.—Commercial correspondence; reading of commercial Spanish. (Conducted in Spanish.) *I, II; (2).*

Dr. SEYMOUR

*Prerequisite:* Spanish 2.



## COURSES FOR ADVANCED UNDERGRADUATES AND GRADUATES

11. THE SPANISH DRAMA OF THE SIXTEENTH AND SEVENTEENTH CENTURIES.—Earlier dramatists; representative plays of Lope de Vega, Calderon, Ruiz de Alarcon and Triso de Molina. Reports on additional plays read outside of class. *I, II; (2).* Dr. SEYMOUR  
*Prerequisite:* Spanish 3.

15. GENERAL SURVEY OF SPANISH LITERATURE.—*II; (2).*

Dr. SEYMOUR

*Prerequisite:* Spanish 3.

## COURSES FOR GRADUATES

[121. OLDEST MONUMENTS OF THE SPANISH LANGUAGE.—Historical grammar and paleography. *Once a week; I, II; (½ unit.)*  
 Not given, 1913-14. Assistant Professor FITZ-GERALD]

[122. OLD SPANISH, ORIGINS OF SPANISH POETRY.—*El poema del Cid* and *Berceo*. Not given in 1913-14. *Once a week; I, II; (½ unit.)*  
 Assistant Professor FITZ-GERALD]

126. THE NOVELA OF THE GOLDEN AGE.—Political and social conditions in Spain from 1560 to 1700; various kinds of prose fiction produced in this period, with special attention to *Don Quixote* and the *Novelas Exemplares* of Cervantes. *Twice a week; I, II; (1 unit).*  
 Assistant Professor FITZ-GERALD

## SCANDINAVIAN LANGUAGES AND LITERATURE

(See GERMANIC LANGUAGES AND LITERATURE)

## THE SOCIAL SCIENCES

(See ECONOMICS, HISTORY, POLITICAL SCIENCE, and SOCIOLOGY.)

## SOCIOLOGY

EDWARD CARY HAYES, Ph.D., *Professor*  
 ARTHUR JAMES TODD, Ph.D., *Associate*

*Honors*

For honors in sociology twenty-four hours in the major subject are required, including Sociology 1, 3, 8, and 9.

The minor subjects may be selected, with the approval of this department, from the following: history, economics, political science, philosophy, and psychology.

## COURSES FOR UNDERGRADUATES

1. THE PRINCIPLES OF SOCIOLOGY.—The nature of such social realities as customs, institutions, organizations, social classes, and castes; changes to which the social realities are subject, and their causes; the effects of geographic conditions, of the forms and distribution of property, of inherited and acquired traits of the population upon society and the effects of prevalent social activities upon each other; the method and the degree in which society molds the lives of its members; order; progress. *I*; (3).

Professor HAYES

*Prerequisite:* Junior standing.

7. THE SOCIAL PROBLEMS OF THE RURAL COMMUNITY.—*II*; (2).

Professor HAYES

*Prerequisite:* Junior standing.

## ADVANCED COURSES FOR UNDERGRADUATES AND GRADUATES

3. SOCIAL EVOLUTION.—Modes of social activity among people at different stages of progress: savage, barbarous, and civilized; family organization, practical arts, economic wants and institutions, origins of government and law, codes of morality, religions; inductions from such facts, as to the theory of social evolution and the method of progress. *II*; (3).

Professor HAYES

*Prerequisite:* Sociology 1.

[6. THE SOCIAL PROBLEMS OF THE URBAN COMMUNITY.—*II*; (3). Not given 1913-14.

Professor HAYES

*Prerequisite:* Senior standing and Sociology 1.]

8. GENERAL CHARITIES.—Evolution of modern organized philanthropy, public and private; causes and prevention of poverty; organization and management of charitable institutions. *I*; (3).

Dr. TODD

*Prerequisite:* Junior standing and Sociology 1 or Economics 1.

9. CRIMINOLOGY.—Nature, causes, and treatment of the criminal; evolution of modern methods of criminal procedure and penology; recent experiments and tendencies. *II*; (3). Dr. TODD

*Prerequisite:* Senior standing.

10. POPULATION.—Theories and policies of population; Malthus' Principle and its critics; problems in population of the United States; immigration, race-mixture, conditions affecting public



health, death-rate, birth-rate, "race-suicide", marriage, divorce; selective influences at work on the "Population type". *I*; (3).

Dr. TODD

*Prerequisite:* Senior standing and Sociology 1 or Economics 1.

11. PRINCIPLES OF SOCIOLOGY.—Fundamental principles and main teachings of sociology, derived from a minute analysis and classification of the elements that make up the life of a people, types of change to which they are subject, and causes by which they are affected. *I*; (3).

Professor HAYES

*Prerequisite:* Senior standing.

12. THE LABOR PROBLEM.—The same as Economics 12.

*Prerequisite:* Economics 1, 3; students who are taking sociology as a major and have had 6 hours in history, and Sociology 1, may be admitted without Economics 3.

15. THE FAMILY.—Evolution of the family and marriage; education, moral, and political significance of the family at different stages of social development. *I, II*; (3).

Dr. TODD

*Prerequisite:* Primarily for graduates, but approved seniors who have had Sociology 1 or equivalent may be admitted; reading knowledge of French or German desirable.

21. SOCIALISM AND SOCIAL REFORM.—The same as Economics 21.

*Prerequisite:* Economics 1, 3; students who are taking sociology as a major and have had 6 hours in history, and Sociology 1, may be admitted without Economics 3.

26. SOCIAL EDUCATION.—Education as a factor in social progress; present day educational policy and organization in the light of theoretical and applied sociology. *II*; (3).

Dr. TODD

*Prerequisite:* Senior standing, and Sociology 1 or Psychology 1 or equivalent.

#### COURSES FOR GRADUATES

Preparation for graduate work in sociology must include at least the equivalent of twelve semester hours in the social sciences, of which at least three must be in sociology, and three in the principles of economics. The remainder may be in any combination of these two subjects, or of history and political science.

The graduate courses in this department are of two classes. Those of the first class deal with the principles of general sociology; these principles relate to the essential nature of customs, institutions, and other forms of social activity, the correlations between them, the types of causes by which they are affected, and the

method by which they are evolved, all of which apply equally to the forms of social activity whether they are employed in the service of economic, political, or other purposes. The courses of the second class treat, in the light of the principles of general sociology, the practical social problems of the present.

The library has most of the standard works in general sociology by American, English, and European authorities, a large collection of books on various sociological problems, and an extensive list of periodicals. Special attention is given to ethnographic and anthropologic materials.

[101. SOCIOLOGICAL METHOD.—The method of advancing the science of sociology; adaptability to sociological investigation of certain methods described in Pearson's *Grammar of Science*, Wundt's *Methodenlehre*, zweite abtheilung, Seignobos' *La Méthode Historique Appliquée aux Sciences Sociales*. Bernheim's *Historische Methode*, Spencer's *Study of Sociology*, and Giddings' *Inductive Sociology*. *Three times a week; I; (1 unit)*. Not given, 1913-14.

Professor HAYES]

102. THE DEVELOPMENT OF SOCIOLOGY.—Readings in the works of writers who have contributed most to the development of sociology; discussion; supplementary lectures. *Once a week; I, II; (1 unit)*.

Professor HAYES

150. SEMINAR.—*Once a week; I, II; (1 to 2 units.)*

Professor HAYES

## SPANISH

(See ROMANCE LANGUAGES AND LITERATURE.)

## VETERINARY SCIENCE

DONALD McINTOSH, V.S., *Professor*

[2. VETERINARY MATERIA MEDICA.—All the agents used for the cure of disease and injury, and for the preservation of health among domestic animals. Lectures; text-books, inspection of specimens of drugs. *I, II; (5)*. Not given in 1913-14.

Professor McINTOSH]

4. ANATOMY, PHYSIOLOGY, AND DISEASES OF DOMESTIC ANIMALS.—The organs of mastication, digestion, respiration; circulation, and lymphatic system; the urinary organs; the skin. *I; (5)*.

Professor McINTOSH



5. ANATOMY, PHYSIOLOGY, AND DISEASES OF DOMESTIC ANIMALS.—The nervous system, bones, joints, feet, eye, and generative organs; epizootic and contagious diseases; catarrhal fever; pyemia; septicaemia; rheumatism; tuberculosis; fistula of the withers; poll-evil; wounds; internal parasites. *II*; (5). Professor McINTOSH

6. CLINIC.—The free clinic is held every Saturday morning from ten to twelve o'clock. Animals are brought to be examined, operated upon, and prescribed for. This class is of signal benefit to the student as he has the opportunity of seeing the cases and of assisting in the work. *I, II*; (1). Professor McINTOSH

*Prerequisite:* Registration in Veterinary Science 4 and 5.

### ZOOLOGY

HENRY BALDWIN WARD, Ph.D., *Professor*

JOHN STERLING KINGSLEY, D.Sc., *Professor*

FRANK SMITH, A.M., *Professor*

CHARLES ZELENY, Ph.D., *Associate Professor*

CHARLES CHRISTOPHER ADAMS, Ph.D., *Associate*

HARLEY JONES VANCLEAVE, Ph.D., *Instructor*

ERNEST CARROLL FAUST, A.B., *Research Assistant*

BESSIE ROSE GREEN, A.M., *Assistant*

RALPH HARLAN LINKINS, A.B., *Assistant*

HARRY VIRL HEIMBURGER, A.B., *Assistant*

HORACE WESLEY STUNKARD, B.S., *Graduate Assistant*

MARGARET VARA COBB, A.M., *Graduate Assistant*

GERTRUDE AMELIA JOHNSON, M.S., *Graduate Assistant*

HOMER ELTON CHENOWETH, A.B., *Graduate Assistant*

GRACE ADALINE WELLS, B.S., *Graduate Assistant*

HENRY GUSTAV MAY, B.S., *Graduate Assistant*

Courses 1 and 2 constitute a general survey of the subject, extending through the entire year, and form the best introduction to later work in zoology. In the second year, a student may choose as

line of work either morphological, experimental, ecological, faunistic, or systematic courses. The courses on microscopical technique (3), heredity and evolution (5), and current literature (20) are of especial value for all students. Medical students should take courses 3 and 6 in the second year. Those preparing to teach zoology in the high school will find field zoology (16, 17) and ecology (9) of especial value, and should not overlook the importance of a course in general entomology.

The equipment of the department includes the usual apparatus,

microscopes, microtomes, paraffin baths, demonstration material, glass ware, and reagents. The various special laboratories are equipped with special apparatus and demonstration material in accordance with their particular needs. Provision is made for meeting such special demands as may arise in connection with individual work.

In addition to the equipment of the department itself, the University Museum contains additional material in the form of series of mounted vertebrates, of Ziegler embryological models, and of alcoholic specimens in all groups; these are utilized as needed for either teaching or research. The collections and library of the Illinois State Laboratory of Natural History, dealing especially with fresh-water biology, are freely accessible to advanced students. The private library and collections of the head of the department, including especially material on invertebrate morphology and on parasitism, are shelved in the research laboratory and available for use by all graduate students in zoology.

#### COURSES FOR UNDERGRADUATES

1. GENERAL ZOOLOGY.—Animal biology; general principles of structure; function and inter-relation of animal forms; origin and development of animal life; the simpler and best-established generalizations in zoological theory. Lectures; laboratory; quiz work. *I*, or *II*; (5).

Professor WARD, Associate Professor ZELENY, Dr. ADAMS, Dr. VANCLEAVE, and assistants

2. VERTEBRATE ZOOLOGY AND COMPARATIVE ANATOMY.—Classification of the Chordata; the early stages of vertebrate embryology; structure of vertebrate tissues; systems of organs considered in respect to their anatomy, function, ontogeny, and evolution in the vertebrate series; anatomical studies of selected types of the Chordata. Lectures; laboratory; quiz work. *II*; (5).

Professor KINGSLEY

*Prerequisite:* Zoology 1.

5. HEREDITY AND EVOLUTION.—(a) The facts of heredity and present views regarding them. (b) The proofs of organic evolution with a discussion of the probable factors involved in the process. Lectures; demonstrations; assigned reading. *II*; (2).

Associate Professor ZELENY

*Prerequisite:* One year of university work.

16. FIELD ORNITHOLOGY.—The birds of the vicinity. Identification; food relations; seasonal distribution; migration activities.



(Students are advised to provide themselves with opera or field glasses.) Field work; lectures. *II*; (2). Professor SMITH

[19. ADVANCED ORNITHOLOGY.—(Continuation of 16.) Difficult groups of birds; economic and technical literature. *I, II*; (2 to 5). Not given, 1913-14. Professor SMITH

*Prerequisite*: Zoology 16 or equivalent.]

#### COURSES FOR GRADUATES AND UNDERGRADUATES

3. MICROSCOPICAL TECHNIQUE AND GENERAL VERTEBRATE EMBRYOLOGY.—Theory and practise of microscopical technique; vertebrate embryos in early stages of development; methods of fixation, embedding, section cutting, staining, and mounting; preparation of embryological material for use in introductory embryology. Lectures; laboratory. *I*; (3). Professor KINGSLEY

*Prerequisite*: Zoology 1, 2.

6. VERTEBRATE ORGANOGENY.—Development of the organs of the vertebrate body. Lectures; assigned readings in a text-book of vertebrate embryology; laboratory studies on embryos of the chick, dogfish, *Amblystoma*, and pig. (A continuation of course 3; for medical students and others.) *II*; (3). Professor KINGSLEY

*Prerequisite*: Zoology 1, 2, 3.

9. ANIMAL ECOLOGY.—The relation of animals to their natural environment; processes of change in environment and their influence upon animal life; the local fauna and the conditions under which it lives; methods of observation, making notes, and collections. Insects, mollusks, reptiles, amphibians, and fishes. Field work; laboratory; assigned reading; reports. *II*; (5).

Dr. ADAMS

*Prerequisite*: One year of zoology or two years of university work, including Zoology 1.

11. PRINCIPLES OF ZOOGEOGRAPHY.—The geographic distribution of animals, particularly the faunas of North America and of Illinois; the fauna in its relation to the complete environment (climate, physiography, geology, vegetation) and from the standpoint of its origin and its dynamic relations. Lectures; laboratory work on maps; field excursions. *I*; (3 or 5). Dr. ADAMS

*Prerequisite*: As in Zoology 9.

13. EXPERIMENTAL EMBRYOLOGY AND REGENERATION.—The factors concerned in individual development. Lectures; demonstrations. *I*; (2). Associate Professor ZELENY

*Prerequisite*: Three years of university work, including one year in zoological courses.

13a. EXPERIMENTAL EMBRYOLOGY AND REGENERATION.—(Laboratory.)—Individual work on definite problems. *I, II*; (1 to 5).

Associate Professor ZELENY

*Prerequisite*: Three years of university work, including one year in zoological courses.

15. VARIATION AND HEREDITY.—The factors of organic evolution; the principles of animal breeding; eugenics. Lectures and demonstrations. *II*; (2). Associate Professor ZELENY

*Prerequisite*: Three years of university work, including one year in zoological courses.

15a. VARIATION AND HEREDITY.—(Laboratory.)—Individual work on definite problems. *I, II*; (1 to 5).

Associate Professor ZELENY

*Prerequisite*: Three years of university work, including one year in zoological courses.

17. FIELD ZOOLOGY.—Collection, preservation, and identification of common representatives of the lower vertebrates and of the various groups of land and fresh-water invertebrates (excluding insects) in the vicinity; identification work on living and preserved material from some of the larger rivers and lakes; observations on the habits and life histories of selected forms. Field and laboratory work; assigned reading. *I*; (4). Professor SMITH

*Prerequisite*: One year of zoology and senior standing.

18. ADVANCED FIELD ZOOLOGY.—More restricted problems in connection with the local fauna; taxonomic or distributional problems. (A continuation of course 17.) *II*; (3 to 5). Professor SMITH

*Prerequisite*: Zoology 17.

22. MORPHOLOGY OF VERTEBRATES.—The skeleton and the brain, the cranial nerves, and the eye and ear. Lectures; laboratory work; dissection of a series of types. *I, II*; (4). Professor KINGSLEY

*Prerequisite*: Zoology 1, 2, 3, and 6.

29. ADVANCED ANIMAL ECOLOGY.—Special problems in ecology, distribution, and faunas, with reference to the interpretation of the relation between animals and their environments. Conferences; laboratory; field work. *I, II*; (2 to 5). Dr. ADAMS

*Prerequisite*: Two years of university work, including Zoology 1 and 9 or 11.

21. INTRODUCTION TO ZOOLOGICAL RESEARCH.—Investigation of topics, usually repeating the work of earlier investigators; the mor-



phology, life history, or reciprocal relations of invertebrate forms. Laboratory; conferences; assigned reading. *I, II; (2 to 5).*

Professor WARD

*Prerequisite:* One year in zoological courses.

20. CURRENT LITERATURE.—Meetings of the instructors and advanced students of the department for the presentation and discussion of the results of recent zoological investigation. (Open to all students of zoology; should be taken by those intending to graduate with a thesis.) *I, II; (1).*

Associate Professor ZELENY

*Prerequisite:* Three years of university work, including one year in zoology.

8. THESIS INVESTIGATION.—Individual work on assigned topics. *I, II; (5).*

Professor WARD, Professor SMITH, Professor KINGSLEY, Associate Professor ZELENY, Dr. ADAMS

*Prerequisite:* Two years in zoological courses.

#### COURSES FOR GRADUATES

Two years of undergraduate work in zoology are ordinarily presupposed for entering upon graduate study in the department. When the work is chosen for a minor the courses listed for graduates and undergraduates, to be acceptable, must be preceded by at least one full year's undergraduate work in zoology. Work done at other institutions will be valued on conference with the head of the department.

102. SELECTED TOPICS FROM VERTEBRATE MORPHOLOGY.—Lectures and required reading on the origin of vertebrates, the segmentation of the head, the morphology of special systems, etc. *Twice a week; I; (1 unit).*

Professor KINGSLEY

[107. PARASITOLOGY.—Structure and life history of animal parasites; their relations to disease; origin and biological significance of parasitism. Conferences; assigned readings; demonstrations. *Twice a week; I, II; (1 unit).* Not given, 1913-14; given in 1914-15 and in alternate years.

Professor WARD]

113. EXPERIMENTAL ZOOLOGY.—Assigned problems in experimental embryology; regeneration, variation, and heredity. *Two to five times a week; I, II; (1 to 2 units).* Associate Professor ZELENY

117. FAUNISTIC ZOOLOGY.—Problems in taxonomy, distribution, and ecology; field work, conference, and lectures. This work is favored by a natural history survey of the State now in progress at

the University; students have the advantage of the collections, library, apparatus, and operations of this survey, *Twice a week; I, II; (1 unit)*. Professor SMITH, Dr. ADAMS

121. INDIVIDUAL RESEARCH COURSES.—

- (a) Zoological problems. Professor WARD
- (b) Faunistic and systematic zoology. Professor SMITH
- (c) Animal Ecology and Zoogeography. Dr. ADAMS
- (d) Vertebrate morphology. Professor KINGSLEY
- (e) Experimental Zoology. Associate Professor ZELNY

127. THEORIES OF ANIMAL PHYLOGENY.—Relations of various groups of animals; significance of so-called intermediate forms; study of invertebrate larval forms and of theories of descent based on them. Lectures; assigned readings; laboratory. *Twice a week; I, II; (1 unit)*. Given in 1913-14 and in alternate years.

Professor WARD





PART IV  
AUXILIARY SCIENTIFIC BUREAUS





# THE AGRICULTURAL EXPERIMENT STATION

---

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

## STAFF

EUGENE DAVENPORT, M.Agr., LL.D., *Director*

\*CYRIL GEORGE HOPKINS, Ph.D., *Vice-Director*

STEPHEN ALFRED FORBES, Ph.D., *Consulting Entomologist*

DONALD MCINTOSH, V.S., *Consulting Veterinarian*

HENRY LEWIS RIETZ, Ph.D., *Statistician*

BURT EARDLEY POWELL, Ph.D., *Editor, Agricultural Press Bulletins*

ANNA CUSHMAN GLOVER, *Assistant Secretary*

## *In Agronomy*

\*CYRIL GEORGE HOPKINS, Ph.D., *Chief, Agronomy and Chemistry*

JEREMIAH GEORGE MOSIER, B.S., *Chief, Soil Physics*

LOUIE HENRIE SMITH, Ph.D., *Chief, Plant Breeding*

JAMES HARVEY PETTIT, Ph.D., *Chief, Soil Fertility*

LEONARD HEGNAUER, B.S., *Chief, Crop Production*

ORA STANLEY FISHER, B.S., *Assistant Chief, Soil Fertility*

\*WILLIAM GEORGE ECKHARDT, B.S., *Associate, Soil Fertility*

AXEL FERDINAND GUSTAFSON, M.S., *Associate, Soil Physics*

ERNEST VAN ALSTINE, B.S., *Associate, Chemistry*

JOSEPH PAUL AUMER, B.S., *Associate, Chemistry*

CLARENCE CHESTER LOGAN, B.S., *Associate, Soils Extension*

JAY BOARDMAN PARK, M.S., *Associate, Plant Breeding*

SIDNEY VIEL HOLT, B.S., *Associate, Soil Physics*

HAROLD WILSON STEWART, B.S., *Associate, Soil Physics*

HENRY CLYDE WHEELER, B.S., *Associate, Soil Physics*

JOHN EZRA WHITCHURCH, B.S., *Associate, Soil Fertility*

EZEKIEL EDWARD HOSKINS, B.S., *Associate, Soil Fertility*

WILLIAM LEONIDOS BURLISON, M.S., *Associate, Crop Production*

WARD HANSON SACHS, B.S., *Associate, Chemistry*

WALTER BYRON GERNERT, Ph.D., *Associate, Plant Breeding*

ALBERT LEMUEL WHITING, Ph.D., *Associate, Soil Biology*

---

\*On leave.



FREDERICK CHARLES BAUER, B.S., *Associate, Soil Fertility*

FREDERICK MARTIN WILLIAM WASCHER, B.S., *First Assistant, Soil Physics*

FORREST ADDISON FISHER, B.S., *First Assistant, Soil Physics*

FRANK WILLIAM GARRETT, B.S., *First Assistant, Soil Fertility*

WILBUR ROY LEIGHTY, B.S., *First Assistant, Chemistry*

GERTRUDE NEIDERMAN, B.S., *Assistant, Chemistry*

ORR MILTON ALLYN, B.S., *Assistant, Crop Production*

ROBERT WILLIAM DICKENSON, B.S., *Assistant, Soil Physics*

LEO ROSS BINDING, B.S., *Assistant, Chemistry*

HARRISON FRED THEODORE FAHRNKOPF, B.S., *Assistant, Soil Fertility*

GEORGE EDWARD GENTLE, B.S., *Assistant, Soil Physics*

HARRY CHARLES GILKERSON, B.S., *Assistant, Soil Fertility*

EDWARD HARVEY WALWORTH, B.S., *Assistant, Crop Production*

ARTHUR FLOYD HECK, B.S., *Assistant, Soil Fertility*

HOWARD JOHN SNIDER, B.S., *Assistant, Soil Fertility*

ARTHUR MAXWELL BRUNSON, B.S., *Assistant, Chemistry*

WARREN RIPPEY SCHOONOVER, B.S., *Assistant, Soil Biology*

CLINTON B CLEVINGER, B.S., *Assistant, Chemistry*

ORLAND I ELLIS, B.S., *Assistant, Soil Physics*

#### *In Animal Husbandry*

HERBERT WINDSOR MUMFORD, B.S., *Chief*

HARRY SANDS GRINDLEY, D.Sc., *Chief, Animal Nutrition*

WALTER CASTELLA COFFEY, M.S., *Chief, Sheep Husbandry*

\*LOUIS DIXON HALL, M.S., *Assistant Chief, Animal Husbandry*

JOHN A DETLEFSEN, D.Sc., *Assistant Chief, Genetics*

HENRY PERLY RUSK, M.S.A., *Assistant Chief, Beef Cattle*

JAMES LLOYD EDMONDS, B.S., *Assistant Chief, Horse Husbandry*

ARTHUR DONALDSON EMMETT, A.M., *Assistant Chief, Animal Nutrition*

HAROLD HANSON MITCHELL, B.S., *Associate, Chemistry*

WALTER EDWARD JOSEPH, Ph.D., *Associate, Animal Husbandry*

SLEETER BULL, M.S., *Associate, Animal Nutrition*

WALTER FREDERICK HANDSCHIN, B.S., *Associate, Animal Husbandry*

WILLIAM HERSCHEL SMITH, M.S., *First Assistant, Animal Husbandry*

VIRGIL AUGUSTUS PLACE, B.S., *First Assistant, Animal Husbandry*

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\*On leave.

FRANCIS MARION SIMPSON, B.S., *First Assistant, Animal Husbandry*

JOHN JONATHAN YOKE, *Assistant, Animal Husbandry*

WILBUR JEROME CARMICHAEL, B.S., *Assistant, Animal Husbandry*

JOHN RICHARD WELLS, B.S., *Assistant, Animal Husbandry*

CHARLES IVAN NEWLIN, B.S., *Assistant, Animal Husbandry*

ELMER ROBERTS, B.S., *Assistant, Genetics*

LEONORA PERRY, *Editorial Assistant*

*In Dairy Husbandry*

HARRY ALEXIS HARDING, Ph.D., *Chief*

WILBUR JOHN FRASER, M.S., *Chief, Dairy Farming*

\*NELSON WILLIAM HEPBURN, M.S., *Assistant Chief, Dairy Manufactures*

MARTIN JOHN PRUCHA, Ph.D., *Assistant Chief, Dairy Bacteriology*

ROYDEN EARL BRAND, M.S., *Associate, Dairy Husbandry*

HARRY MONTGOMERY WEETERS, *Assistant, Dairy Husbandry*

HORATIO NEWTON PARKER, *First Assistant, Milk Distribution*

JESSE MELANGTHON BARNHART, M.S., *First Assistant, Chemistry*

LEROY LANG, M.S., *Associate, Dairy Manufactures*

WILLIAM TRUMAN CRANDALL, M.S., *Associate, Milk Production*

RAY STILLMAN HULCE, B.S.A., *First Assistant, Milk Production*

OLIVER ARNOLD KELLER, B.S., *Assistant, Dairy Manufactures*

HARRISON AUGUST RUEHE, B.S., *First Assistant, Dairy Manufactures*

FRANK ASHMORE PEARSON, B.S., *Assistant, Dairy Husbandry*

ERNEST MCCHESENEY CLARK, B.S., *Assistant, Dairy Husbandry*

*In Horticulture*

JOSEPH CULLEN BLAIR, M.S.A., *Chief*

CHARLES SPENCER CRANDALL, M.S., *Chief, Plant Breeding*

JOHN WILLIAM LLOYD, M.S.A., *Chief, Olericulture*

HERMAN BERNARD DORNER, M.S., *Assistant Chief, Floriculture*

BETHEL STEWART PICKETT, M.S., *Assistant Chief, Pomology*

OSCAR S WATKINS, B.S., *Associate, Horticultural Chemistry*

ERNEST WINFIELD BAILEY, M. S., *Associate, Plant Breeding*

†ARNO HERBERT NEHRLING, *Associate, Floriculture*

WARREN ALBERT RUTH, A.M., *Associate, Horticultural Chemistry*

CHARLES ELMER DURST, B.S., *Associate, Olericulture*

SIMEON JAMES BOLE, A.M., *Associate, Pomology*

THOMAS BREGGER, B.S., *First Assistant, Plant Breeding*

---

\*On leave.

†Resigned, February 1, 1914.



ALFRED JOSEPH GUNDERSON, B.S., *First Assistant, Pomology*  
FRED WEAVER MUNCIE, A.B., *First Assistant, Floriculture*  
CHARLES BOVETT SAYRE, B.S., *First Assistant, Olericulture*  
CHARLES CHRISTIAN REES, A.B., *Assistant, Horticulture*  
GEORGE LEO PELTIER, A.M., *Assistant, Floricultural Pathology*  
JOHN JOSEPH GARDNER, B.S., *Assistant, Pomology*  
JAMES HUTCHINSON, *Assistant, Floriculture*  
JULIA ALBERTA HARPER, A.B., *Editorial Assistant*

By an act approved March 2, 1887, the national government appropriated \$15,000 per annum to each state for the purpose of establishing and maintaining, in connection with the colleges founded upon the congressional act of 1862, agricultural experiment stations, "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." Under this provision the *Agricultural Experiment Station* for Illinois was founded in 1888 and placed under the direction of the Trustees of the University; a part of the University farm, with buildings, was assigned for its use.

The federal grants to the Station have been supplemented by State appropriations, until its revenues have become larger than those of any other similar institution in the world.

Investigations are conducted in the growing and marketing of orchard fruits, the methods of production of meats and of dairy goods, the principles of animal breeding and of nutrition, and the improvement and the economic production of crops. All the principal types of soil of the State are being studied in the laboratory under glass and in the field. A soil survey is in progress which when finished will map and describe the soil of every farm of the State down to an area of ten acres. Between forty and fifty fields and orchards are operated in various portions of the State for the study of local problems, and assistants are constantly on the road for the conduct of experiments or to give instruction to producer or consumer. The results of investigation are published in bulletins, which are issued in editions of 40,000 and distributed free of charge.

Much of this work is of interest to students, especially of graduate grade, and it is freely available for this purpose, so far as is consistent with the interests of the Station.

# THE ENGINEERING EXPERIMENT STATION

---

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

## STAFF

\*WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., *Director*

CHARLES RUSS RICHARDS, M.M.E., *Acting Director*

ALFRED KNIGHT CHITTENDEN, Ph.B., M.F., *Assistant to the Director  
and Lecturer on Timber and Timber Resources*

THE HEADS OF THE DEPARTMENTS OF THE COLLEGE OF ENGINEERING

## SPECIAL INVESTIGATORS

HERBERT FISHER MOORE, M.M.E., *Assistant Professor in the Department of Theoretical and Applied Mechanics*

DUFF ANDREW ABRAMS, C.E., *Associate in the Department of Theoretical and Applied Mechanics*

DAVID FORD MCFARLAND, A.M., M.S., Ph.D., *First Assistant in the Department of Chemistry*

WILLIS APPLEFORD SLATER, M.S., C.E., *First Assistant in the Department of Theoretical and Applied Mechanics*

ROBERT BROWDER KELLER, B.S., *First Assistant in the Department of Railway Engineering*

TRYGVE D YENSEN, M.S., E.E., *Assistant in the Department of Electrical Engineering*

JOHN NICHOLAS VEDDER, A.M., *Assistant in the Department of Mechanical Engineering*

HAROLD HOUGHTON DUNN, M.S., *Assistant in the Department of Railway Engineering*

ALONZO PLUMSTED KRATZ, M.S., *Assistant in the Department of Mechanical Engineering*

## RESEARCH FELLOWS

HARRY FIELDING HADLEY, A.M., *Chemistry*

RUDOLPH McDERMET, B.S., *Electrical Engineering*

GEORGE ALFRED MANEY, C.E., *Theoretical and Applied Mechanics*

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\*On leave.



HOWARD RICE THOMAS, C.E., *Theoretical and Applied Mechanics*

WALTER JACOB WOHLBERG, B.S., *Mechanical Engineering*

JEFFERSON HALL BELT, B.S., *Electrical Engineering*

JULIAN MONTGOMERY, C.E., *Theoretical and Applied Mechanics*

MERLE LOUIS NEBEL, B.S., *Mining Engineering*

ROBERT BEDFORD POGUE, B.M.E., *Railway Engineering*

The Engineering Experiment Station was established by action of the Board of Trustees, December 8, 1903. Its purposes are the stimulation and elevation of engineering education, and the study of problems of special importance to professional engineers and to the manufacturing, railway, mining, and industrial interests of the State and the country. The practical nature of the investigations and their adaptation to present-day needs are assured by means of conferences with committees of the leaders of the State's industrial activities.

The control of the Station is vested in the heads of the several departments of the College of Engineering. These constitute the Station Staff, and, with the Director, determine the character and extent of the investigations to be undertaken.

Up to the present time, sixty-eight bulletins of value to engineering science have been published. The experiments have related chiefly to tests of high-speed tool steels; the resistance of tubes to collapse; the holding power of railroad spikes; the effect of scale on heat transmission; roof trusses; base and bearing plates in columns and beams; stresses in chain links; extensions of the Dewey decimal system of classification; tests of electric lamps; lighting country homes by private electric plants; street lighting; high steam pressures in locomotive service; rate of formation of carbon monoxide in gas producers; fuel tests; the weathering of coal and the spontaneous combustion of coal; thermal conductivity of fireclay; heat transmissions; freight train resistance; tests of a suction gas producer; tests of concrete; reinforced concrete beams and columns; tests of cast-iron and reinforced concrete culvert pipe; tests of brick columns and terra cotta block columns; tests of timber beams; tests of built-up columns under load; tests to determine the resistance to flow through locomotive water columns; tests of nickel-steel riveted joints; strength of rolled zinc; inductance of coils; mechanical stresses in transmission lines; starting currents of transformers; superheated steam in locomotive service; a new analysis of the cylinder performance of reciprocating engines;

effects of cold weather upon train resistance and tonnage rating; coking of coal at low temperatures; characteristics and limitations of the series transformer; electron theory of magnetism; entropy-temperature and transmission diagrams for air; tests of reinforced concrete buildings under load; the steam consumption of locomotive engines from indicator diagrams; properties of saturated and superheated ammonia vapor; reinforced concrete wall footings and column footings; and strength of I-beams in flexure.



# THE STATE LABORATORY OF NATURAL HISTORY

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EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

## STAFF

STEPHEN ALFRED FORBES, Ph.D., LL.D., *Director*

CHARLES ARTHUR HART, *Systematic Entomologist*

MARY JANE SNYDER, *Secretary*

ROBERT EARL RICHARDSON, A.M., *Assistant in charge of Biological Station*

CHARLES EDWIN JANVRIN, Ph.B., B.L.S., *Librarian*

In 1885 the General Assembly passed an act transferring the *State Laboratory of Natural History* from the Illinois State Normal University to the University of Illinois. This laboratory was created for the purpose of making a natural history survey of the State, the results of which should be published in a series of bulletins and reports; and for the allied purpose of furnishing specimens illustrative of the flora and fauna of the State to the public schools and to the State museum. For these purposes direct appropriations are made by the legislature from session to session. Material of all classes has been collected in all parts of the State, field observations and experiments have been conducted, extending over many years, and twelve volumes have been published in the form of bulletins and final reports.

The most important problem upon which the work of the survey is at present concentrated is the effect of drainage operations, sewage contaminations, and other results of industrial occupancy upon the general system of life in our principal rivers.

# THE STATE ENTOMOLOGIST'S OFFICE

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## STAFF

STEPHEN ALFRED FORBES, Ph.D., LL.D., *State Entomologist*  
CHARLES ARTHUR HART, *Systematic Entomologist*  
WESLEY PILLSBURY FLINT, *Assistant for Central Illinois*  
LINDLEY MALCOLM SMITH, B.S., *Assistant for Southern Illinois*  
DAVID KENT MACMILLAN, B.S., *Assistant for Northern Illinois*  
PRESSLEY ADAMS GLENN, A.M., *Chief Horticultural Inspector*  
ROBERT DOUGLAS GLASGOW, A.B., *Special Assistant*  
S FRED PRINCE, *Illustrator*

The work of the *State Entomologist's Office* has been done at the University of Illinois since January, 1885; by legislative enactment in 1899 it was permanently established at the University, the Trustees of which are required by that act to provide for the Entomologist and his assistants such office and laboratory rooms as may be necessary to the performance of their duties.

It is the duty of this officer to investigate all insects dangerous to any valuable property or dangerous to the public health, and to conduct experiments for the control of injuries to persons or property by insects, publishing the results of his researches biennially in his official report. He is required also to inspect and certify annually all Illinois nurseries and all importations of nursery stock, and to maintain a general supervision of the horticultural property of the State with respect to its infestation by dangerous insects and its infection with contagious plant disease.

Twenty-seven reports have now been published by the Entomologist, fourteen of them since the transfer of his office to the University.



# THE STATE WATER SURVEY

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EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

## STAFF

EDWARD BARTOW, Ph.D., *Director*  
SAMUEL WILSON PARR, M.S., *Consulting Chemist*  
ARTHUR NEWELL TALBOT, C.E., *Consulting Engineer*  
OTTO RAHN, Ph.D., *Consulting Bacteriologist*  
PAUL HANSEN, B.S., *Engineer*  
WILFRED FRANCIS LANGELIER, M.S., *Inspector*  
HARRY PEACH CORSON, M.S., *Chemist and Bacteriologist*  
RALPH HILSCHER, B.S., *Assistant Engineer*  
MILFORD EVERETT HINDS, B.S., *Assistant Chemist*  
FRED WILBUR TANNER, B.S., *Assistant Bacteriologist*  
FLOYD WILLIAM MOHLMAN, B.S., *Assistant Chemist*  
HARRY FOSTER FERGUSON, B.S., *Assistant Engineer*  
HENRY LAWRENCE HUENINK, M.S., *Assistant Chemist*  
MAURICE CHARLES SJOBLUM, B.S., *Engineering Assistant*  
JOHN FRANCIS SCHNELLBACH, B.S., *Engineering Assistant*  
CHARLES HERBERT SPAULDING, B.S., *Assistant Chemist*

A chemical survey of the waters of the State was begun in the latter part of September, 1895. In 1897 the legislature authorized the continuance of the work and directed the Trustees of the University to establish a chemical and biological survey of the waters of the State. In 1911 the legislature imposed additional duties on the State Water Survey, authorizing the Water Survey to employ field men to inspect water supplies, water-sheds, etc., and to make, free of charge, sanitary examinations of water for citizens of Illinois, and made increased appropriations. The Survey is collecting data concerning the water supplies, sewerage systems, and water sheds, making chemical and bacteriological examinations to demonstrate the sanitary condition of water supplies and streams, and determining standards of purity for drinking waters. The Survey advises municipal authorities how best to obtain and conserve an adequate supply of pure water for domestic and manufacturing purposes.

The Survey is a division of the department of chemistry of the University of Illinois, and special laboratories are equipped in the Chemistry Building for conducting the work. The engineering division is located in Engineering Hall.

# THE STATE GEOLOGICAL SURVEY

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## COMMISSION

GOVERNOR EDWARD F. DUNNE, *Chairman*

PROFESSOR T. C. CHAMBERLIN, Ph.D., D.Sc., LL.D., *Vice-Chairman*

PRESIDENT EDMUND JANES JAMES, Ph.D., LL.D., *Secretary*

## STAFF

FRANK WALBRIDGE DEWOLF, B.S., *Director*, Urbana

EDWARD BARTOW, Ph.D., *Consulting Chemist in Water Analysis*,  
University of Illinois, Urbana

ULYSSES SHERMAN GRANT, Ph.D., *Consulting Geologist in Lead and  
Zinc Studies*, Northwestern University, Evanston

SAMUEL WILSON PARR, M.S., *Consulting Chemist in Coal Investi-  
gations*, University of Illinois, Urbana

CHARLES WESLEY ROLFE, M.S., *Consulting Geologist in Clay Investi-  
gations*, University of Illinois, Urbana

ALBERT VICTOR BLEININGER, B.S., *Consulting Ceramist*, U. S. Bur-  
eau of Standards, Pittsburgh, Pa.

ROLLIN D SALLISBURY, A.M., LL.D., *Consulting Geologist in Prep-  
aration of Educational Series*, University of Chicago, Chicago

FRED HALL KAY, B.S., *Assistant State Geologist*, Urbana

THOMAS EDMUND SAVAGE, Ph.D., *Geologist*, University of Illinois,  
Urbana

STUART WELLER, Ph.D., *Geologist*, University of Chicago, Chicago

GILBERT H CADY, A.M., *Assistant Geologist*, Northwestern Univer-  
sity, Evanston

RAYMOND SILLIMAN BLATCHLEY, B.S., *Geologist*, Urbana

E WESLEY SHAW, B.S., *Assistant Geologist in Co-operative Sur-  
veys*, Urbana, Ill., and Washington, D. C.

HENRY HINDS, M.S., *Assistant Geologist in Co-operative Surveys*,  
Urbana, Ill., and Washington, D. C.

JUSTA M LINDGREN, A.M., *Chemist*, Urbana

WILLIAM HENRY HERRON, B.S., *Geographer in charge of Topo-  
graphical Surveys*, Urbana, Ill., and Washington, D. C.

The Forty-fourth General Assembly passed an act, in force July 1, 1905, providing for the establishment at the University of Illinois of the *State Geological Survey*. The Survey is under the control of



a Commission, of which the President of the University is an *ex officio* member.

The purpose of the Survey is primarily the study and exploration of the mineral resources of Illinois. Field parties are organized for the investigation of oil, clay, coal, stone, artesian water, cement materials, and road materials, and for general scientific investigations. The Survey is charged also with the duty of making a complete topographical and geological survey of the State. The topographical surveys are now being carried on in co-operation with the United States Geological Survey. These will lead to the publication of a series of bulletins and maps, eventually covering the entire State.

The Forty-fifth General Assembly further charged the Commission with the duty of making surveys and studies of lands subject to overflow, with a view to their reclamation. Work has been carried on in co-operation with the Rivers and Lakes Commission, the United States Geological Survey, and the United States Department of Agriculture, along the Sangamon, Kaskaskia, Big Muddy, Little Wabash, Embarrass, Spoon, and Saline rivers. Reports have been issued on the Little Wabash, Kaskaskia, and Embarrass.

The laboratory work is done in connection with various department laboratories of the University. The equipment includes a working library, maps, and a growing collection, illustrating the geological and the economical resources of the State. Sixteen bulletins and a large number of maps have been published. Many temporary assistants besides the regular corps are employed each summer.

Under an agreement between the State Geological Survey and the College of Engineering on the one hand, and the United States Bureau of Mines on the other, a branch station has been located at Urbana for the demonstration of modern methods in mine-rescue work, and for the study of mining methods and mine wastes in Illinois.

A similar agreement by the above-named parties provides for a co-operative investigation of the Illinois coal mining industry. The Forty-seventh General Assembly made appropriations to carry on the work for two years, and the Forty-eighth General Assembly repeated the appropriations for an equal period. See page 500.

# THE BOARD OF EXAMINERS IN ACCOUNTANCY

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EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

## BOARD OF EXAMINERS

W. E. SEATREE, C.P.A., *Chicago*

MARQUIS EATON, *Chicago*

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## UNIVERSITY COMMITTEE

DAVID KINLEY, Ph.D., LL.D., *Chairman*

MAURICE HENRY ROBINSON, Ph.D., *Secretary*

CHARLES MAXWELL McCONN, A.M.

By a law passed in 1903 the State University is made an examining board of applicants for certificates as certified public accountants. To carry out the provisions of the law the Board of Trustees have appointed a board of three examiners to prepare, conduct, and grade examinations, and a University committee to conduct the routine work. Under the law one examination must be held each year in May, but examinations have been held also in November or December of each year in which there were a sufficient number of applicants. All the examinations thus far given have been held in the city of Chicago.

Applicants for the certificate of Certified Public Accountant are required to pass examinations in the theory of accounts, commercial law, auditing, and practical accounting.



# CO-OPERATIVE INVESTIGATION OF ILLINOIS COAL PROBLEMS AND MINE RESCUE STATION

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EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

## STAFF

### *College of Engineering—*

\*WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., *Dean.*

CHARLES RUSS RICHARDS, M.M.E., *Acting Dean*

HARRY HARKNESS STOEK, B.S., E.M., *Professor of Mining Engineering*

STEPHEN OSGOOD ANDROS, A.B., B.S., E.M., *Associate in Mining Engineering*

*Special Mining Engineers and Field Samplers*

### *State Geological Survey—*

FRANK WALBRIDGE DEWOLF, B.S., *Director, State Geological Survey*

SAMUEL W. PARR, M.S., *Consulting Chemist*

FRED HALL KAY, B.S., *Assistant State Geologist*

*Special Geologists and Field Samplers*

### *United States Bureau of Mines—*

JOSEPH AUSTIN HOLMES, B.S., D.Sc., LL.D., *Director, United States Bureau of Mines*

†ROBERT YOUNG WILLIAMS, A.B., E.M., *Mining Engineer, U. S. Bureau of Mines, Urbana, Illinois*

‡JOHN THOMAS RYAN, B.S.(Min.), *Assistant Mining Engineer, U. S. Bureau of Mines, Urbana, Illinois*

JOHN W. KOSTER, E.M. *Assistant Mining Engineer, studying the use of explosives*

LOUIS A. SCHOLL, B.S., *Chemist, studying the explosibility of coal dust*

RUDOLPH KUDLICH, *Assistant Engineer, studying gasoline locomotives*

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\*On leave.

†Resigned, December 31, 1913.

‡Appointed, January 1, 1914.

The department of Mining Engineering of the University of Illinois, the State Geological Survey, and the United States Bureau of Mines are co-operating in the investigation of some of the problems connected with the mining of coal in the State of Illinois, under authority granted by the Forty-seventh General Assembly.

This co-operative work is constructive as well as statistical, based upon accurate data and taking account of all existing conditions, to enable the operators and miners of the State to produce coal more safely, more cheaply, and with less waste.

A force of trained mining engineers, geologists, and chemists has been placed at the disposal of the coal industry of Illinois.

A Mine Explosion and Mine Rescue Station is maintained in Urbana by the United States, in co-operation with the State Geological Survey and the Department of Mining Engineering of the University of Illinois.

The purpose of this station is to interest all connected with the mining industry in the use of breathing resuscitation apparatus in connection with rescue work in mines, as an aid in fighting mine fires, and in the opening of mines which have been sealed on account of fires. The station not only gives demonstrations, but undertakes to train men in the use of such apparatus, the service being rendered gratuitously, and, as far as possible, to all interested in the subject.



# MINERS' AND MECHANICS' INSTITUTES

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EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

## STAFF

ROBERT YOUNG WILLIAMS, A.B., E.M., *Director*

### *Advisory Committee*

CHARLES RUSS RICHARDS, M.E., M.M.E., *Professor of Mechanical Engineering, Head of the Department of Mechanical Engineering, and Acting Dean of the College of Engineering*

HARRY HARKNESS STOEK, B.S., E.M., *Professor of Mining Engineering*

The Illinois Miners' and Mechanics' Institutes were established by act of the State Legislature, Senate Bill No. 259, approved May 25, 1911. An appropriation of \$15,000.00 per annum to carry out this authorization was included in House Bill No. 895, approved June 30, 1913.

The purpose of the institutes, as stated in the act, is "to prevent accidents in mines and other industrial plants and to conserve the resources of the state."

In the development of this purpose, any and all means may be employed which promise "to promote the technical efficiency of all persons working in and about the mines and other industrial plants and to assist them to better overcome the increasing difficulties of mining and other industrial employments."

The administration of the Institutes is vested in the Trustees of the University. The Trustees have appointed a Director and have placed the Institutes under the general supervision of the department of mining engineering of the University of Illinois.

PART V  
LIST OF STUDENTS, ETC.  
(1913—1914)





# LIST OF STUDENTS

## THE GRADUATE SCHOOL

|                                                                                                                            |       |                            |
|----------------------------------------------------------------------------------------------------------------------------|-------|----------------------------|
| Abe, Mikishi—Theoretical and Applied Mechanics<br>B.S. ( <i>Tohoku Imperial Univ.</i> ) 1905                               | (SS)* | <i>Ichinoseki, Japan</i>   |
| Adams, John William—Botany<br>A.B., B.Ped., A.M. ( <i>Ohio Univ.</i> ) 1907, 1908,<br>1910                                 | SS    | <i>Galesburg</i>           |
| Allen, Chester Harmon—Organic Chemistry<br>A.B. ( <i>Lawrence College</i> ) 1912                                           |       | <i>Appleton, Wis.</i>      |
| Allen, Louis—French<br>†A.B., 1913                                                                                         |       | <i>Urbana</i>              |
| Anderson, Harry Warren—Botany<br>A.B. ( <i>Wabash Coll.</i> ) 1907<br>A.M. ( <i>Vanderbilt Univ.</i> ) 1910                | SS    | <i>Ladoga, Ind.</i>        |
| Anderson, Isabella—Latin<br>A.B., 1913                                                                                     | SS    | <i>Prairie du Rocher</i>   |
| Andronescu, Demetrius—Agronomy<br>Diploma ( <i>Agricultural College, Roumania</i> )                                        |       | <i>Bucharest, Roumania</i> |
| Anthony, Marie Elizabeth—English<br>A.B. ( <i>Greenville Coll.</i> ) 1907<br>A.M., 1911                                    |       | <i>Greenville</i>          |
| Austin, Alice Louise—Scholar in the Classics<br>A.B. ( <i>Monmouth Coll.</i> ) 1910                                        |       | <i>Monmouth</i>            |
| Bagley, Ruth Gertrude—English<br>A.B. ( <i>Univ. Michigan</i> ) 1893<br>A.M. ( <i>Univ. California</i> ) 1905              |       | <i>Champaign</i>           |
| Bair, William Harry—Physics<br>B.S. ( <i>Ohio Northern Univ.</i> ) 1908                                                    |       | <i>Ruffsedale, Pa.</i>     |
| Baker, James Chamberlain—Philosophy<br>A.B. ( <i>Illinois Wesleyan Univ.</i> ) 1898<br>S.T.B. ( <i>Boston Univ.</i> ) 1905 |       | <i>Urbana</i>              |
| Baker, Robert Earl—Chemistry<br>A.B. ( <i>Univ. Oklahoma</i> ) 1912                                                        |       | <i>Norman, Okla.</i>       |
| Ball, Theodore Rally—Chemistry<br>B.S. ( <i>Drake Univ.</i> ) 1908                                                         |       | <i>Des Moines, Iowa</i>    |
| Barnhart, Jesse Melancton—Chemistry<br>B.S., M.S., 1906, 1912                                                              |       | <i>Urbana</i>              |
| Barr, Oren Augustus—History<br>B.Ed. ( <i>Illinois State Normal Univ.</i> ) 1913                                           |       | <i>Normal</i>              |
| Bates, Elinore Adelia—German<br>A.B. ( <i>Oberlin Coll.</i> ) 1908                                                         | SS    | <i>Andover, Ohio</i>       |
| Bauer, Frederick Charles—Agronomy<br>B.S., 1909                                                                            |       | <i>Champaign</i>           |
| Bayley, Paul Levern—Scholar in Physics<br>A.B. ( <i>Univ. Arkansas</i> ) 1913                                              |       | <i>Fort Smith, Ark.</i>    |
| Belt, Jefferson Hall—Fellow in Electrical Engineering<br>A.B., 1912                                                        |       | <i>Saybrook</i>            |
| Belting, Paul Everett—History<br>A. B., 1912                                                                               | SS    | <i>Urbana</i>              |
| Biegler, Philip Sheridan—Electrical Engineering<br>B.S. ( <i>Univ. Wisconsin</i> ) 1905                                    |       | <i>Champaign</i>           |

\*Attendance during both the Summer Session of 1913 and the regular session of 1913-14 is indicated by SS in parenthesis; during the Summer Session only, by SS.

†Degrees were conferred by the University of Illinois unless otherwise specified. Two degrees from the same institution are indicated thus: A.B., A.M., 1909, 1911.



|                                                                                                                          |      |                    |
|--------------------------------------------------------------------------------------------------------------------------|------|--------------------|
| Binding, Leo Ross—Agronomy<br>B.S. ( <i>Michigan Agr'l. Coll.</i> ) 1912                                                 |      | Stockbridge, Mich. |
| Blayney, Lillian—Scholar in History<br>A.B. ( <i>Monmouth Coll.</i> ) 1913                                               |      | Monmouth           |
| Bole, Simeon James—Education<br>A.B. ( <i>Univ. Michigan</i> ) 1906<br>A.M., 1912                                        |      | Champaign          |
| Bond, John David—Mathematics<br>A.B. ( <i>Univ. Tennessee</i> ) 1909                                                     |      | Gallatin, Tenn.    |
| Bowden, Robert Douglas—Political Science<br>A.B. ( <i>State Coll. Oklahoma</i> ) 1913                                    | SS   | Sedalia, Ky.       |
| Brady, St. Elmo—Chemistry<br>A.B. ( <i>Fisk Univ.</i> ) 1908                                                             |      | Louisville, Ky.    |
| Braley, Silas Alonzo—Industrial Chemistry<br>A.B. ( <i>Morningside Coll.</i> ) 1913                                      |      | Cherokee, Iowa     |
| Brandner, Alexander Rudolph—Scholar in Architecture<br>B.S., 1913                                                        |      | Chicago            |
| Brigham, Reed Oshea—Botany<br>B.S. ( <i>Ohio State Univ.</i> ) 1912                                                      |      | Toledo, Ohio       |
| Brown, Robert Wesley—Fellow in Geology<br>B.S. ( <i>Northwestern Univ.</i> ) 1911<br>M.S., 1913                          |      | Chicago            |
| Browne, Lois Adeline—Scholar in English<br>A.B. ( <i>James Millikin Univ.</i> ) 1912                                     |      | Carbondale         |
| Brunson, Arthur Maxwell—Agronomy<br>B.S., 1913                                                                           |      | Joliet             |
| Brush, Elizabeth Parnham—History<br>A.B. ( <i>Smith Coll.</i> ) 1909<br>A.M., 1912                                       |      | Boulder, Colo.     |
| Buchen, Walther Albert—English<br>A.B. ( <i>Univ. Wisconsin</i> ) 1911<br>A.M., 1913                                     |      | Urbana             |
| du Buisson, Johannes Petrus—Agronomy<br>A.B., 1913                                                                       |      | Senekal, S. Africa |
| *Buellesfield, Henry—Education<br>LL.B. ( <i>Valparaiso Univ.</i> ) 1901<br>A.B., 1906                                   |      | Nokomis            |
| Bull, Sleeter—Animal Husbandry<br>B.S. ( <i>Ohio State Univ.</i> ) 1910<br>M.S. ( <i>Pennsylvania State Coll.</i> ) 1911 |      | Sidney, Ohio       |
| Burlison, William Leonidas—Agronomy<br>B.S. ( <i>Univ. Oklahoma</i> ) 1905<br>M.S., 1908                                 | (SS) | Champaign          |
| †Burt, Henry Jackson—Civil Engineering<br>B.S., 1896                                                                     |      | Wilmette           |
| Burton, Laurence Vreeland—Bacteriology<br>B.S., 1911                                                                     | (SS) | Aurora             |
| Carmichael, Wilbur Jerome—Animal Husbandry<br>B.S., 1913                                                                 |      | Urbana             |
| Carroll, William Ernest—Fellow in Animal Husbandry<br>B.S. ( <i>Agr. Coll. Utah</i> ) 1909<br>M.S., 1911                 |      | Orderville, Utah   |
| Carscallen, George Ernest—Mathematics<br>A.B. ( <i>Wabash Coll.</i> ) 1906<br>A.M., 1910                                 | SS   | Frankfort, Ind.    |
| Carter, Herbert Melville—Organic Chemistry<br>B.S. ( <i>Tufts Coll.</i> ) 1913                                           |      | Norwood, Mass.     |
| Caswell, Omar—Education<br>A.B. ( <i>Indiana Univ.</i> ) 1897                                                            | (SS) | Mascoutah          |
| Charlton, Ernest Edward—Industrial Chemistry<br>A.B. ( <i>Grinnell Coll.</i> ) 1913                                      |      | Cherokee, Iowa     |
| Chenoweth, Homer Eldon—Zoology<br>A.B., 1913                                                                             |      | Charleston, Ohio   |
| †Chinlund, Joseph Ferdinand—Electrical Engineering<br>B.S., 1910                                                         |      | Chicago            |

\*On leave of absence.

†Candidate for professional degree in engineering.

|                                                                                                             |                              |
|-------------------------------------------------------------------------------------------------------------|------------------------------|
| *Clark, Charles Richard—Architecture<br>B.S., 1898                                                          | <i>Champaign</i>             |
| Clark, Clifton Wirt—Geology<br>A.B., 1913                                                                   | <i>Pratt, Kans.</i>          |
| †Clark, Darwin O—History<br>A.B. ( <i>Drury Coll.</i> ) 1896<br>A.M., 1909                                  | <i>Carthage, Mo.</i>         |
| Clark, Fred Emerson—Fellow in Economics<br>A.B. ( <i>Drury Coll.</i> ) 1896<br>A.M., 1909                   | <i>Albion, Mich.</i>         |
| Clark, Helen—Scholar in Psychology<br>A.B. ( <i>Vassar Coll.</i> ) 1913                                     | <i>Cortland, N. Y.</i>       |
| Clark, Karl Adolf—Physical Chemistry<br>A.B., A.M. ( <i>McMaster Univ.</i> ) 1910, 1912                     | <i>Toronto, Can.</i>         |
| Clevenger, Clinton B—Agronomy<br>B.S., M.S. ( <i>Ohio State Univ.</i> ) 1912, 1913                          | <i>Fletcher, Ohio</i>        |
| Cobb, Margaret Vara—Zoology<br>A.B. ( <i>Radcliffe Coll.</i> ) 1910<br>A.M., 1913                           | <i>Falls Church, Va.</i>     |
| Colby, Arthur Samuel—Pomology<br>B.S. ( <i>New Hampshire Coll.</i> ) 1911                                   | <i>Tilton, N. H.</i>         |
| Conel, Jesse LeRoy—Fellow in Zoology<br>A.B. ( <i>James Millikin Univ.</i> ) 1912<br>A.M., 1913             | <i>Decatur</i>               |
| Corson, Harry Peach—Sanitary Chemistry<br>B.S. ( <i>New Hampshire Coll.</i> ) 1910<br>M.S., 1912            | <i>Laconia, N. H.</i>        |
| Cort, William Walter—Fellow in Zoology<br>A.B. ( <i>Colorado Coll.</i> ) 1909<br>A.M., 1911                 | (SS) <i>Champaign</i>        |
| Coultas, Lois Miriam—Scholar in German<br>A.B. ( <i>Illinois Woman's Coll.</i> ) 1913                       | <i>Winchester</i>            |
| †Coyle, James Perry—Physics<br>A.B. ( <i>Lake Forest Coll.</i> ) 1910                                       | (SS) <i>Logansport, Ind.</i> |
| Crane, Rufus—Botany<br>A.B. ( <i>Middlebury Coll.</i> ) 1909<br>B.S. ( <i>Mass. Inst. Technology</i> ) 1911 | <i>North Hanover, Mass.</i>  |
| Crow, William Leslie—Education<br>A.B., 1912<br>A.M. ( <i>McPherson Coll.</i> ) 1913                        | SS <i>Chatham</i>            |
| Cushing, Helen Isabel—Scholar in Philosophy<br>A.B. ( <i>Lake Forest Coll.</i> ) 1913                       | <i>Mt. Morris</i>            |
| Darrah, Juanita Elizabeth—Chemistry<br>A.B., 1913                                                           | <i>Champaign</i>             |
| Davisson, Bert Stover—Chemistry<br>A.B. ( <i>Indiana Univ.</i> ) 1911                                       | <i>New Richmond, Ind.</i>    |
| †Deffendall, Prentice Hoover—English<br>A.B. ( <i>DePauw Univ.</i> ) 1906                                   | (SS) <i>Taylorville</i>      |
| Demmer, John Edward—Chemistry<br>A.B., 1910                                                                 | SS <i>Pinckneyville</i>      |
| Dewey, Ida Belle—Scholar in English<br>A.B. ( <i>Rockford Coll.</i> ) 1913                                  | <i>Rockford</i>              |
| Dickenson, Robert William—Agronomy<br>B.S., 1912                                                            | <i>Paris</i>                 |
| Dixon, Raymond Ephraim—English Literature<br>A.B. ( <i>Univ. Wisconsin</i> ) 1909                           | <i>Dalton, Wis.</i>          |
| *Dolkart, Leo—Electrical Engineering<br>B.S., 1903                                                          | <i>Moline</i>                |
| Ebersol, Elmer Tryon—Agronomy<br>A.B., 1902                                                                 | <i>Ottawa</i>                |
| Edwards, Forrest Glen—Chemistry<br>A.B. ( <i>Lombard Coll.</i> ) 1907                                       | SS <i>Princeville</i>        |
| Edwards, Kate—Education<br>A.B. ( <i>Knox Coll.</i> ) 1911                                                  | SS <i>McLeansboro</i>        |
| Ekblaw, Mrs. Alma Heuman—History<br>A.B., 1910                                                              | <i>Urbana</i>                |

\*Candidate for professional degree in engineering.

†Work completed with exception of thesis.



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| Emmett, Arthur Donaldson—Chemistry<br>B.S., A.M., 1901, 1905                                                                   |      | Urbana               |
| Engle, Edgar Wallace—Chemistry<br>B.S. ( <i>Drury Coll.</i> ) 1912                                                             |      | Springfield, Mo.     |
| Englis, Duane Taylor—Food Chemistry<br>A.B. ( <i>Eureka Coll.</i> ) 1912                                                       | (SS) | Eureka               |
| Eppels, Conrad Joseph—French<br><i>Königliches Lehrerseminar</i> , 1907                                                        |      | Urbana               |
| Erdahl, Absalom C—Scandinavian Languages<br>A.B. ( <i>St. Olaf Coll.</i> ) 1911<br>A.M., 1913                                  |      | Frost, Minn.         |
| *Etherton, William Alonzo—Architectural Engineering<br>B.S., 1904                                                              |      | Washington, D. C.    |
| Fager, Daniel Baldwin—Education<br>Graduate ( <i>Southern Ill. State Normal</i> ) 1883                                         |      | Vandalia             |
| Fahrnkopf, Harrison Frederick Theodore—Agronomy<br>B.S., 1913                                                                  |      | Urbana               |
| Farwell, Stanley Prince—Fellow in Electrical Engineering<br>B.S., M.S., 1907, 1910                                             | (SS) | Oklahoma City, Okla. |
| Faust, Ernest Carroll—Zoology<br>A.B. ( <i>Oberlin Coll.</i> ) 1912                                                            |      | Carthage, Mo.        |
| Fisher, Lewis Nebinger—Scholar in Theoretical and Applied Mechanics<br>B.S., 1912                                              |      | Decatur              |
| *Fisk, Ira William—Electrical Engineering<br>B.S., M.S., 1909, 1913                                                            |      | Urbana               |
| Flaningham, Miletus Lafayette—Education<br>B.S. ( <i>Northwestern Univ.</i> ) 1904                                             | (SS) | Urbana               |
| Fleener, Frank Leslie—Geology<br>A.B. ( <i>Denison Univ.</i> ) 1912                                                            |      | Dodge Center, Minn.  |
| *Flowers, Roy Warner—Architectural Engineering<br>B.S., 1906                                                                   |      | Gary, Ind.           |
| Foster, Lawrence Fleming—Chemistry<br>A.B. ( <i>Albion Coll.</i> ) 1910                                                        | (SS) | Albion, Mich.        |
| Fracker, Stanley Black—Fellow in Entomology<br>A.B. ( <i>Buena Vista Coll.</i> ) 1910<br>M.S. ( <i>Iowa State Coll.</i> ) 1912 |      | Storm Lake, Iowa     |
| Frailey, Lester Eugene—Education<br>(work for A.B. completed)                                                                  |      | Urbana               |
| Frohardt, Louis Philip—Education<br>A.B., A.M. ( <i>Central Wesleyan Coll.</i> )<br>1881, 1884                                 | SS   | Granite City         |
| Furukawa, Sozabu—Architecture<br>B.S., 1913                                                                                    |      | Kasuga, Japan        |
| Gardner, John Joseph—Pomology<br>B.S. ( <i>Massachusetts Agr'l Coll.</i> ) 1905<br>B.S. ( <i>Boston Univ.</i> ) 1912           |      | Clinton, Mass.       |
| Garman, Philip—Scholar in Entomology<br>B.S. ( <i>Kentucky State Univ.</i> ) 1913                                              |      | Lexington, Ky.       |
| Geyer, Denton Loring—Philosophy<br>A.B. ( <i>Univ. Wisconsin</i> ) 1910                                                        |      | Madison, Wis.        |
| Gilmore, Ross Earlby—Chemistry<br>A.M. ( <i>McMaster Univ.</i> ) 1913                                                          |      | Toronto, Can.        |
| Gittins, Elizabeth Mae—Fellow in Zoology<br>B.S. ( <i>Drake Univ.</i> ) 1909                                                   |      | Williamsburg, Iowa   |
| Goad, Winfred Llewellyn—Education<br>A.B. ( <i>Indiana Univ.</i> ) 1913                                                        |      | Mt. Carmel           |
| Goebel, Julius Ludwig, Jr.—Political Science<br>A.B., A.M., 1912, 1913                                                         |      | Urbana               |
| Goodwin, Thomas Gregory—English<br>A.B. ( <i>Harvard Univ.</i> ) 1912                                                          |      | Jamaica Plain, Mass. |
| Gourley, Mary Jane—Zoology<br>A.B., 1909                                                                                       |      | Paxton               |
| Gray, Cora Emeline—Economics<br>B.S., M.S. ( <i>Univ. Chicago</i> ) 1906, 1909                                                 |      | W. Palm Beach, Fla.  |
| Green, Bessie Rose—Zoology<br>A.B., A.M., 1907, 1910                                                                           |      | Ivesdale             |

\*Candidate for professional degree in engineering.

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|----------------------------------------------------------------------------------------------------|------|---------------------------|
| Greene, Elizabeth Grosvenor—Philosophy<br>A.B., B.L.S., 1904, 1905                                 |      | <i>Champaign</i>          |
| Greene, James Henry—Animal Husbandry<br>B.S., 1908                                                 | SS   | <i>Garrett, Ind.</i>      |
| Gross, Alfred William—Education<br>A.B., 1908                                                      |      |                           |
| Ph.B. ( <i>Northwestern Coll.</i> ) 1909                                                           | SS   | <i>Atwood</i>             |
| *Gulley, Laurence Richard—Mechanical Engineering<br>B.S., M.S., 1910, 1911                         |      | <i>Urbana</i>             |
| Gutberlet, John Earl—Fellow in Zoology<br>A.B. ( <i>Bethany Coll.</i> ) 1909                       |      |                           |
| A.M., 1911                                                                                         | (SS) | <i>Hardy, Nebr.</i>       |
| Gwinn, Alta—English<br>A.B., A.M., 1907, 1910                                                      |      | <i>Urbana</i>             |
| Hadley, Harry Fielding—Fellow in Industrial Chemistry<br>A.B. ( <i>James Millikin Univ.</i> ) 1911 |      |                           |
| A.M., 1912                                                                                         |      | <i>Champaign</i>          |
| Hall-Quest, Alfred Laurence—Education<br>A.B. ( <i>Augustana Coll.</i> ) 1900                      |      |                           |
| A.M. ( <i>Univ. Kansas</i> ) 1913                                                                  |      | <i>Brooklyn, N. Y.</i>    |
| Handschin, Walter Frederick—Animal Husbandry<br>B.S., 1913                                         |      | <i>Urbana</i>             |
| Hanford, Alfred Chester—Political Science<br>A.B., A.M., 1912, 1913                                |      | <i>Carbondale</i>         |
| Hanford, Wesley Wallace—Chemistry<br>B.S. ( <i>Wesleyan Univ.</i> ) 1913                           |      | <i>Middletown, Conn.</i>  |
| <b>Hansen, Roy—Agronomy</b><br>(Work for B.S. completed)                                           |      | <i>Rock Island</i>        |
| Hanson, Frank Blair—Zoology<br>A.B. ( <i>George Washington Univ.</i> ) 1913                        |      | <i>Bloomington</i>        |
| Harbarger, Sada Annis—English<br>A.B. ( <i>Ohio State Univ.</i> ) 1906                             |      |                           |
| A.M., 1909                                                                                         |      | <i>Columbus, Ohio</i>     |
| Harder, Oscar Edward—Fellow in Chemistry<br>A.B., A.M. ( <i>Univ. Oklahoma</i> ) 1910, 1911        |      | <i>Urbana</i>             |
| Harlan, Charles Leroy—Education<br>A.B. ( <i>Indiana Univ.</i> ) 1912                              |      | <i>Connersville, Ind.</i> |
| Harner, George Madison—Agronomy<br>B.S., 1913                                                      |      | <i>Urbana</i>             |
| Harshbarger, James Francis—Education<br>A.B., 1913                                                 | SS   | <i>Arcola</i>             |
| Haskett, Aloa Alice—Scholar in Latin<br>A.B. ( <i>Illinois Wesleyan Univ.</i> ) 1913               |      | <i>Bloomington</i>        |
| Hebbert, Clarence Mark—Mathematics<br>B.S. ( <i>Otterbein Univ.</i> ) 1911                         |      | <i>Bloomdale, Ohio</i>    |
| Heck, Archie Oliver—Scholar in Mathematics<br>B.S. ( <i>Hedding Coll.</i> ) 1913                   |      | <i>Bardolph</i>           |
| Heck, Arthur Floyd—Agronomy<br>B.S., 1913                                                          |      | <i>Urbana</i>             |
| Hedlund, Mauritz—Mathematics<br>B.S., M.S. ( <i>Dartmouth Coll.</i> ) 1912, 1913                   |      | <i>Worcester, Mass.</i>   |
| Heimbürger, Harry V—Zoology<br>A.B. ( <i>DePauw Univ.</i> ) 1911                                   |      | <i>Kewanna, Ind.</i>      |
| Heitkamp, George William—Physiography<br>A.B. ( <i>Univ. Wisconsin</i> ) 1912                      |      | <i>Cuba, Wis.</i>         |
| Held, Felix Emil—German Literature<br>A.B., A.M. ( <i>Emporia Coll.</i> ) 1902, 1908               |      | <i>Emporia, Kans.</i>     |
| Henion, Lora Atkins—English<br>A.B., A.M., 1907, 1911                                              | SS   | <i>Urbana</i>             |
| Henry, Theodore S—Education<br>A.B. ( <i>Hedding Coll.</i> ) 1903                                  | SS   | <i>Havana</i>             |
| Hess, Raymond W—Organic Chemistry<br>A.B. ( <i>Morningside Coll.</i> ) 1912                        |      | <i>Plover, Iowa</i>       |
| Heuse, Edward Otto—Fellow in Chemistry<br>A.B. ( <i>Hanover Coll.</i> ) 1900                       |      |                           |
| M.S., 1907                                                                                         |      | <i>Urbana</i>             |

\*Candidate for professional degree in engineering.



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|------------------------------------------------------------------------------------------------------------------------|------|--------------------|
| Hewes, Charles Kay—Organic Chemistry<br>B.S., 1912                                                                     |      | Quincy             |
| Hinds, Milford Everett—Chemistry<br>A.B. ( <i>Northwestern Univ.</i> ) 1912                                            |      | Peotone            |
| Hofacker, Olga Vera—English<br>A.B. ( <i>Carroll Coll.</i> ) 1907<br>A.B., 1911                                        | SS   | Peoria             |
| Holley, Charles Elmer—Fellow in Education<br>A.B., A.M., 1912, 1913                                                    |      | Franklin Grove     |
| Horner, Nellie Nancy—Physics<br>A.B., 1912                                                                             |      | Danville           |
| Hoskinson, Ottis—Education<br>A.B. ( <i>Union Christian Coll.</i> ) 1900                                               | SS   | Meron, Ind.        |
| Howard, Joseph Whitney—Fellow in Chemistry<br>A.B. ( <i>Shurtleff Coll.</i> ) 1912<br>A.M., 1913                       |      | Upper Alton        |
| *Howell, Leslie Dillon—Architectural Engineering<br>B.S., 1907                                                         |      | Salem, Oregon      |
| Hudelson, Clyde Whittaker—Animal Husbandry<br>B.S., 1913                                                               |      | Gooding, Idaho     |
| Huenink, Henry Lawrence—Sanitary Chemistry<br>A.B. ( <i>Carroll Coll.</i> ) 1911 -<br>M.S., 1913                       |      | Cedar Grove, Wis.  |
| Hulce, Ray Stillman—Dairy Husbandry<br>B.S.A. ( <i>Univ. Wisconsin</i> ) 1911<br>M.S., 1913                            | SS   | Whitewater, Wis.   |
| Hull, Anna Leo—History<br>A.B., 1910                                                                                   |      | Urbana             |
| Hursh, Ralph Kent—Ceramics<br>B.S., 1908                                                                               | SS   | Champaign          |
| Inagaki, Nobtaro—Economics<br>(Work for A.B. completed)                                                                |      | Tokyo, Japan       |
| Ingels, Nelle Louise—Scholar in Mathematics<br>Ph.B. ( <i>Greenville Coll.</i> ) 1911                                  |      | Greenville         |
| James, Helen Dickson—German<br>A.B., A.M., 1910, 1913                                                                  |      | Urbana             |
| Jamison, Michael Valma—Latin<br>A.B. ( <i>Northwestern Univ.</i> ) 1912                                                | SS   | Monmouth           |
| Jaynes, Ethel—Mathematics<br>A.B. ( <i>Univ. Chicago</i> ) 1904                                                        | SS   | Chicago            |
| *Jensen, J Norman—Civil Engineering<br>B.S., 1906                                                                      |      | Chicago            |
| Johnson, Gertrude Amelia—Zoology<br>B.S. ( <i>Northwestern Univ.</i> ) 1911<br>M.S., 1913                              |      | Chicago            |
| Jones, Easley Stephen—English<br>A.B., A.M. ( <i>Univ. Colorado</i> ) 1907, 1909<br>A.M. ( <i>Harvard Univ.</i> ) 1913 |      | Urbana             |
| Jones, Lester Seaman—Education<br>B.S. ( <i>Northwestern Univ.</i> ) 1905                                              | SS   | Oblong             |
| Jones, Lloyd Theodore—Physics<br>A.B. ( <i>Lake Forest Coll.</i> ) 1909<br>M.S., 1912                                  |      | Raymond            |
| Kamm, Oliver—Organic Chemistry<br>B.S., M.S., 1911, 1913                                                               | (SS) | Highland           |
| Karrer, Sebastian—Physics<br>A.B., A.M. ( <i>Washington Univ.</i> ) 1911, 1913                                         |      | Roslyn, Wash.      |
| Kelso, Ruth—English<br>A.B., A.M., 1908, 1909                                                                          |      | Columbus, Ohio     |
| Kernall, Morris Johnson—Fellow in Zoology<br>A.B. ( <i>Univ. North Dakota</i> ) 1906                                   |      | Valley City, N. D. |
| Kessler, Harvey Lamech—Education<br>A.B., 1910                                                                         | SS   | Roseville          |
| Kile, Jessie June—Scholar in History<br>A.B. ( <i>Rockford Coll.</i> ) 1912                                            |      | Rockford           |
| Kingsley, Mary Winship—History<br>A.B., A.M. ( <i>Tufts Coll.</i> ) 1903                                               |      | Urbana             |

\*Candidate for professional degree in engineering

- Kircher, Edward August Theodore—Fellow in Mathematics  
A.B., A.M., 1911, 1912 Chicago
- Kirkpatrick, Harold H—Education  
A.B., 1897 SS LeRoy
- Knight, Abner Richard—Electrical Engineering  
M.E. (*Ohio State Univ.*) 1909 Champaign
- Knight, Charles Kelley—Scholar in Economics  
A.B., A.M. (*Ohio Univ.*) 1912, 1913 Athens, Ohio
- Knoche, Viola Emma—Scholar in German  
A.B. (*Northwestern Coll.*) 1913 Cedar Falls, Iowa
- Kremers, Harry Cleveland—Inorganic Chemistry  
A.B. (*Hope Coll.*) 1913 Hudsonville, Mich.
- Lamb, Burley Frank—Scholar in Economics  
A.B. (*Albion Coll.*) 1913 Hillsdale, Mich.
- Lamkey, Ernest Michael Rudolph—Botany  
A.B., 1913 (SS) Riverton
- Lantz, Cyrus William—Scholar in Botany  
A.B., 1913 Brooklyn
- Larson, Martha Sharson—Latin  
A.B., 1910 (SS) Morris
- Lauter, Carl John—Chemistry  
B.S., 1911 Quincy
- Lawrence, Matthew—Scholar in History  
A.B. (*Shurtleff Coll.*) 1913 Urbana
- Lawson, Edward Latan—Education  
A.B., Ph.B. (*Union Christian Coll.*) 1901, 1902 (SS) Villa Grove
- Layng, Thomas Ernest—Industrial Chemistry  
A.B., A.M. (*McMaster Univ.*) 1909, 1912 (SS) Toronto, Can.
- LeCato, John Marvin—Botany  
A.B. (*Univ. Michigan*) 1913 Harman, Md.
- Lee, Miss Ma-li—Education  
Work for A.B. completed (*Iowa Wesleyan Coll.*) Nanking, China
- Lehenbauer, Philip Augustus—Fellow in Botany  
A.B. (*Westminster Coll.*) 1907  
B.S. (*James Millikin Univ.*) 1908 (SS) Urbana
- Lewis, Harry Fletcher—Sanitary Chemistry  
B.S., M.S. (*Wesleyan Univ.*) 1912, 1913 Pottsville, Pa.
- Lewis, Lucy Elfa—Education  
A.B., 1911 SS Danville
- Lillehei, Ingebright—Scandinavian  
A.B., A.M. (*Univ. Minnesota*) 1908, 1909 Minneapolis, Minn.
- Lincoln, Warren—Scholar in Animal Husbandry  
B.S.A. (*Washington State Coll.*) 1913 Prosser, Wash.
- Linkins, Ralph Harlan—Zoology  
A.B. (*Illinois Coll.*) 1911 Jacksonville
- McComis, Samuel Jay—Education  
LL.B. (*Jefferson Univ.*) 1910 SS Lacon
- McCoy, Dwight Wesley—Education  
A.B., 1912 SS Versailles
- McDermet, Rudolph—Fellow in Electrical Engineering  
B.S., 1912 Seattle, Wash.
- McDowell, Samuel Kline—Education  
B.S. (*Tri-State College*) 1909 SS Hoopeston
- Macfarlane, Wallace—Fellow in Agronomy  
B.S. (*Univ. Utah*) 1910  
M.S., 1913 Logan, Utah
- McGregor, Harold Hossack—Fellow in Chemistry  
A.B. (*McMaster Univ.*) 1909  
M.S. (*Univ. Louisville*) 1912 Ottawa, Can.
- McIntire, Mamie Minerva—Latin  
A.B., 1906 SS Urbana
- McJohnston, Harrison—English  
A.B. (*Northwestern Univ.*) 1907 McCutcheonsville, Ind.
- McKenna, Edward Lawrence—Scholar in Economics  
A.B. (*Columbia Coll.*) 1913 Brooklyn, N. Y.
- McKinney, Henry Theodore—Education  
A.B., 1913 (SS) Hudgens



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| Maney, George Alfred—Fellow in Theoretical and Applied Mechanics<br>C.E. ( <i>Univ. Minnesota</i> ) 1911                | Minneapolis, Minn.       |
| Manuel William Asbury—Chemistry<br>A.B. ( <i>DePauw Univ.</i> ) 1912                                                    | Greencastle, Ind.        |
| Marquis, Stewart Dent—Chemistry<br>A.B. ( <i>Lake Forest Coll.</i> ) 1911                                               | Rock Island              |
| *Marshall, Robert Haskell—Mathematics                                                                                   | Gamaliel, Ky.            |
| Mathews, Howard—Scholar in Electrical Engineering<br>B.S., 1913                                                         | Yates City               |
| Mathewson, Louis Clark—Fellow in Mathematics<br>A.B., A.M. ( <i>Albion College</i> ) 1910, 1911<br>A.M., 1912           | Macelona, Mich.          |
| May, Henry Gustav—Zoology<br>B.S. ( <i>Univ. Rochester</i> ) 1913                                                       | Dallas, Oregon           |
| *Mellen, Arthur Franklin—Chemistry                                                                                      | Amboy                    |
| Melrose, Mary Hazel—Education<br>A.B., 1910                                                                             | SS Grayville             |
| Miles, Lois Maia—Scholar in the Classics<br>A.B., 1910                                                                  | Bushnell                 |
| Millard, Earl Bowman—Fellow in Chemistry<br>A.B. ( <i>Univ. Colorado</i> ) 1910<br>A.M. ( <i>Univ. Wisconsin</i> ) 1911 | Central City, Nebr.      |
| Miller, J Earl—Fellow in History<br>A.B. ( <i>Univ. Kansas</i> ) 1910<br>LL.B., A.M., 1912, 1913                        | (SS) Marysville, Kan.    |
| Miller, Jessie Fay—Scholar in the Classics<br>A.B., 1913                                                                | Gilman                   |
| Miller, Wilford Stanton—Psychology<br>A.B., A.M. ( <i>Indiana Univ.</i> ) 1910, 1911                                    | Champaign                |
| Mills, Guy G—Civil Engineering<br>B.S., 1912                                                                            | Palestine                |
| Mitchell, Harold Hanson—Animal Nutrition<br>A.B., M.S., 1909, 1913                                                      | Urbana                   |
| Mohlman, Floyd William—Chemistry<br>B.S., 1912                                                                          | (SS) Urbana              |
| Montgomery, Julian—Fellow in Theoretical and Applied Mechanics<br>B.S. ( <i>Grayson Coll.</i> ) 1908                    | Whitewright, Texas       |
| Moore, Laura McAllister—History<br>A.B. ( <i>Indiana Univ.</i> ) 1892                                                   | SS Terre Haute, Ind.     |
| Morehouse, Francis Milton—History<br>A.B., 1910                                                                         | SS Annawan               |
| Morris, Alice Elvira—Education<br>A.B., 1913                                                                            | (SS) Viola               |
| †Morse, Samuel Theodore—Civil Engineering<br>B.S., 1896                                                                 | Carlinville              |
| Mosher, Edna—Entomology<br>B.S.A. ( <i>Cornell Univ.</i> ) 1908<br>M.S., 1913                                           | Kempt Shore, Nova Scotia |
| Moulton, Gertrude Evelyn—Sociology<br>A.B. ( <i>Oberlin Coll.</i> ) 1903<br>A.B. ( <i>Rio Grande Coll.</i> ) 1905       | Reva, S. Dak.            |
| Muncie, Fred Weaver—Chemistry<br>A.B. ( <i>Wabash Coll.</i> ) 1910<br>M.S., 1913                                        | (SS) Paris               |
| Myers, John Calvin—Education<br>A.B. ( <i>Northwestern Univ.</i> ) 1912                                                 | SS Lena                  |
| Myers, John T—Chemistry<br>Ph.B. ( <i>Central Wesleyan Coll.</i> ) 1909                                                 | SS Gibson City           |
| Nathanson, Jonas Bernard—Physics<br>A.B. ( <i>Ohio State Univ.</i> ) 1912<br>A.M., 1913                                 | Urbana                   |
| Nebel, Dora Myrtle—Mathematics<br>(Work for A.B. completed)                                                             | Urbana                   |
| Nebel, Merle Louis—Fellow in Mining Engineering<br>B.S., 1913                                                           | Urbana                   |

\*Has completed the number of hours required for graduation from the College of Liberal Arts and Sciences.

†Candidate for professional degree in engineering.

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| Neill, Alma Jessie—Physiology<br>A.B., 1913                                                                             |      | Chillicothe         |
| Newell, Clyde Ross—Bacteriology<br>Ph.B., M.S. ( <i>Yale Univ.</i> ) 1910, 1912                                         |      | Milford, Conn.      |
| Newlin, Charles Ivan—Animal Husbandry<br>B.S., 1912                                                                     |      | Urbana              |
| NicRoley, Mrs. Emma May Rhoads—English<br>A.B., 1899                                                                    |      | Beirüt, Syria       |
| Niederman, Gertrude—Chemistry<br>B. S., 1908                                                                            |      | Chicago             |
| Noerenberg, Clarence Eugene—Education<br>B.S., A.E., A.B., 1907, 1909, 1910                                             |      | Highland Park       |
| Ochsuer, Albert Henry—Animal Husbandry<br>A.B. ( <i>Univ. Wisconsin</i> ) 1911<br>M.S. ( <i>Univ. California</i> ) 1913 |      | Chicago             |
| Overmier, Emmons—Mechanical Engineering<br>B.S., 1913                                                                   |      | Mt. Auburn          |
| Owens, Albert Waffle—Inorganic Chemistry<br>B.S. ( <i>Bucknell Univ.</i> ) 1909                                         | SS   | Lewisburg, Pa.      |
| Parker, Karr—Scholar in Chemistry<br>B.S. ( <i>Carthage College</i> ) 1913                                              |      | Madisonville, Ky.   |
| Parr, Rosalie Mary—Botany<br>A.B., A.M., 1906, 1911                                                                     |      | Mapleton            |
| Partridge, Newton Lyman—Scholar in Entomology<br>B.S., 1913                                                             |      | Chicago             |
| Pasmore, Daniel Frederick—Scholar in German<br>A.B. ( <i>Albion Coll.</i> ) 1913                                        |      | Swartz Creek, Mich. |
| Patton, Carrie Cade—Sociology<br>A.B. ( <i>Northwestern Univ.</i> ) 1909<br>B.L.S., 1911                                |      | Urbana              |
| Paulson, Paul Alexander—Scholar in Chemistry<br>A.B. ( <i>Augustana Coll.</i> ) 1913                                    |      | Rockford            |
| Pearson, Frank Ashmore—Dairy Husbandry<br>B.S.A. ( <i>Cornell Univ.</i> ) 1912                                          |      | Beaver Falls, Pa.   |
| Peine, Arthur Frederick—Fellow in History<br>A.B., A.M., 1911, 1913                                                     |      | Bloomington         |
| Peltier, George Leo—Botany<br>A.B. ( <i>Univ. Wisconsin</i> ) 1911<br>A.M. ( <i>Washington Univ.</i> ) 1912             | (SS) | Urbana              |
| Perry, Winifred Almina—English<br>A.B., 1908                                                                            |      | Urbana              |
| Peterson, Alvah—Entomology<br>B.S. ( <i>Knox Coll.</i> ) 1911<br>A.M., 1913                                             | (SS) | Galesburg           |
| Peterson, Stella Maude—English<br>A.B. ( <i>Albion Coll.</i> ) 1909                                                     | SS   | Saranac, Mich.      |
| Petty, Luther Ewing—Mathematics<br>A.B. ( <i>Wabash Coll.</i> ) 1907                                                    |      | Aspen Hill, Tenn.   |
| Place, Virgil Augustus—Animal Husbandry<br>B.S. ( <i>Ohio State Univ.</i> ) 1912                                        | (SS) | Hume, Ohio          |
| Pogue, Robert Bedford—Fellow in Railway Engineering<br>B.M.E. ( <i>Kentucky State Univ.</i> ) 1913                      |      | Lexington, Ky.      |
| Prickett, Alva LeRoy—Economics<br>A.B., 1913                                                                            |      | Litchfield          |
| Randolph, Oscar Alan—Physics<br>B.S., M.S., 1911, 1913                                                                  |      | Summersville, Mo.   |
| Ray, Samuel Hawkins—Scholar in Animal Husbandry<br>B.S. ( <i>Agr'l. and Mech. Coll. Texas</i> ) 1911                    |      | San Antonio, Texas  |
| Read, John William—Agronomy<br>B.S., M.S. ( <i>Univ. Missouri</i> ) 1907, 1908                                          |      | Columbia, Mo.       |
| Rees, Charles Christian—Botany<br>A.B. ( <i>Wabash Coll.</i> ) 1913                                                     |      | Rochester, Ind.     |
| Reeves, Harry Payne—Scholar in Romance Languages<br>A.B., 1913                                                          |      | Urbana              |
| Renich, Amanda Barbara—History<br>A.B., 1910                                                                            |      | Woodstock           |
| Renich, Katharine Louise—History<br>A.B., 1911                                                                          |      | Woodstock           |



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|------------------------------------------------------------------------------------------------------|-------------------------|
| Roberts, Elmer—Animal Husbandry<br>B.S., 1913                                                        | Urbana                  |
| Rogers, Anna Sophie—Latin<br>A.B., 1911                                                              | Bushnell                |
| Rolfe, Martha Deette—History<br>B.S., A.M., 1900, 1904                                               | Champaign               |
| Ross, Clarence Samuel—Geology<br>A.B., 1913                                                          | Champaign               |
| Ross, John Carl—Chemistry<br>A.B. ( <i>South African Coll.</i> ) 1911                                | Cape Town, South Africa |
| Rowland, Sidney Archibald, Jr.—Theoretical Physics<br>A.B. ( <i>Ouachita Coll.</i> ) 1907 (SS)       | Bartlesville, Okla.     |
| Rugg, Harold Ordway—Education<br>B.S., C.E. ( <i>Dartmouth Coll.</i> ) 1908, 1909 (SS)               | Fitchburg, Mass.        |
| Russell, Frederic Arthur—Fellow in Economics<br>A.B., A.M. ( <i>Albion Coll.</i> ) 1908, 1909        | Urbana                  |
| Rutledge, George—Mathematics<br>A.B., A.M., 1910, 1913                                               | Urbana                  |
| Sayre, Charles Bovett—Horticulture<br>B.S., 1913                                                     | Chicago                 |
| Sayre, E. Randall—History<br>A.B., A.M. ( <i>McKendree Coll.</i> ) 1909, 1910                        | Lebanon                 |
| Sayre, Rollo Clifton—History<br>B.S. ( <i>McKendree Coll.</i> ) 1909 SS                              | Grayville               |
| *Schafmayer, Albert James—Civil Engineering<br>B.S., 1907                                            | Chicago                 |
| Scherfee, Samuel Hawthorne—Botany<br>A.B. ( <i>Stanford Univ.</i> ) 1909                             | Mt. Morris              |
| Schinnerer, Otto Paul—Scholar in German<br>A.B., 1913                                                | Bay City, Mich.         |
| Scholl, Clarence—Sanitary Chemistry<br>B.S., 1913 (SS)                                               | Watseka                 |
| Schoonover, Warren Rippey—Agronomy<br>B.S. ( <i>Occidental Coll.</i> ) 1912                          | Alhambra                |
| Sears, George Wallace—Inorganic Chemistry<br>B.S. ( <i>Drury Coll.</i> ) 1908<br>M.S., 1911          | Kidder, Mo.             |
| Shackell, Bessie Estelle—Classics<br>A.B., A.M., 1910, 1911 SS                                       | Urbana                  |
| Sheets, Earl Wooddell—Animal Husbandry<br>B.S. ( <i>West Virginia Univ.</i> ) 1912                   | Morganstown, W. Va.     |
| Shen, Wen Yu—Plant Breeding<br>B.S., 1913                                                            | Shantung, China         |
| Shewhart, Walter Andrew—Scholar in Physics<br>A.B., 1913                                             | New Canton              |
| Shoemaker, Dorothy Ruth—Sociology<br>A.B. ( <i>Oberlin Coll.</i> ) 1913                              | Cedar Falls, Iowa       |
| Shook, Glenn Alfred—Physics<br>A.B. ( <i>Univ. Wisconsin</i> ) 1907                                  | Urbana                  |
| Shulters, John Raymond—French<br>A.B., A.M., 1910, 1911                                              | Bristol, N. Y.          |
| Shultz, Edith Adeline—History<br>A.B., 1913                                                          | Chicago                 |
| Siebens, Thekla Maria—Scholar in German<br>A.B. ( <i>James Millikin Univ.</i> ) 1911                 | Minonk                  |
| Sievert, Carl William John—Chemistry<br>(Work for B.S. completed)                                    | Blue Island             |
| Simpson, Francis Marion—Animal Husbandry<br>B.S., 1909                                               | Urbana                  |
| Skinner, Glenn Seymour—Organic Chemistry<br>A.B. ( <i>Kans. Manual Training Normal School</i> ) 1913 | Cherokee, Kans.         |
| *Sluss, Alfred Higgins—Mechanical Engineering<br>B.S., 1901                                          | Lawrence, Kans.         |
| Smith, Guy Watson—Mathematics<br>B.S., M.S. ( <i>Univ. Colorado</i> ) 1908, 1909                     | Castle Rock, Colo.      |

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\*Candidate for professional degree in engineering.

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|------------------------------------------------------------------------------------------------------------------|------|---------------------|
| Smith, Orrin Harold—Physics<br>A.B. ( <i>Knox Coll.</i> ) 1908<br>A.M., 1909                                     |      | Corning, Iowa       |
| *Smith, Raymond Stratton—Scholar in Agronomy<br>B.S. ( <i>Pomona Coll.</i> ) 1907<br>B.S., 1913                  |      | Moorpark, Cal.      |
| Smith, Rose—Botany<br>B.S., 1911                                                                                 | SS   | Gibson City         |
| Smith, William Herschel—Animal Husbandry<br>B.S. ( <i>Nebraska State Univ.</i> ) 1906<br>M.S., 1912              |      | Tobias, Neb.        |
| Snider, Earl Quinter—Entomology<br>A.B., 1906                                                                    | SS   | Urbana              |
| †Snyder, Christopher Henry—Civil Engineering<br>B.S., 1890                                                       |      | San Francisco, Cal. |
| Spaulding, Charles Herbert—Chemistry<br>B.S., 1912                                                               |      | Springfield         |
| Spencer, Edwin Rollin—Education<br>A.B., 1911                                                                    | SS   | Waverly             |
| Spindler, George Washington—German Literature<br>A.B., A.M. ( <i>Indiana Univ.</i> ) 1900, 1908                  |      | Woodland, Mich.     |
| Stanley, Thomas Blaine—English<br>A.B. ( <i>Earlham Coll.</i> ) 1913                                             |      | Noblesville, Ind.   |
| †Stein, Milton Frederick—Civil Engineering<br>B.S., 1909                                                         |      | Chicago             |
| ††Steinke, Martin William—German<br>A.B. ( <i>Wartburg Coll.</i> ) 1908<br>A.M. ( <i>Univ. Washington</i> ) 1910 |      | Ann Arbor, Mich.    |
| Stevens, Wayne Edson—Scholar in History<br>A.B. ( <i>Knox Coll.</i> ) 1913                                       |      | Avon                |
| Stevenson, Lionel—Animal Husbandry<br>B.S.A. ( <i>Toronto Univ.</i> ) 1912                                       |      | Ancaster, Ont.      |
| Stewart, Charles Leslie—Economics<br>A.B., A.M., 1911, 1912                                                      |      | Bloomington         |
| Stewart, Harold Wilson—Agronomy<br>B.S., 1909                                                                    |      | Urbana              |
| Stokes, Claude Newton—Scholar in Mathematics<br>A.B. ( <i>McKendree Coll.</i> ) 1913                             |      | Crossville          |
| Strader, Edna Louise—Household Science<br>B.S. ( <i>James Millikin Univ.</i> ) 1910                              | SS   | Decatur             |
| Stunkard, Horace Wesley—Zoology<br>B.S. ( <i>Coe College</i> ) 1912                                              |      | Walker, Iowa        |
| Sullivan, Ward William—Scholar in History<br>A.B., 1911                                                          |      | Thompsonville       |
| Sutcliffe, Emerson Grant—English<br>A.B. ( <i>Harvard Univ.</i> ) 1911                                           |      | Plymouth, Mass.     |
| Sutherland, George Fred—Zoology<br>A.B., 1913                                                                    |      | Champaign           |
| ††Tanabe, Stetfan—Physics<br>B.S. ( <i>Knox Coll.</i> ) 1911                                                     |      | Tokyo, Japan        |
| Tanner, Fred William—Sanitary Chemistry<br>B.S. ( <i>Wesleyan Univ.</i> ) 1912                                   | (SS) | Warsaw, N. Y.       |
| Taylor, Everett Harvey—Chemistry<br>A.B., 1913                                                                   |      | Lancaster, Wis.     |
| Taylor, Scott Champlin—Chemistry<br>A.B., 1913                                                                   |      | Bement              |
| Theilen, Margaret Katherine—Scholar in History<br>A.B., 1913                                                     |      | Coatsburg           |
| Thomas, Howard Rice—Fellow in Theoretical and Applied Mechanics<br>C.E. ( <i>Univ. Texas</i> ) 1912              |      | Austin, Texas       |
| Thompson, David Grosh—Geology<br>A.B. ( <i>Northwestern Univ.</i> ) 1911<br>A.M., 1913                           |      | Evanston            |
| Thoreen, Edna Amelia—Scholar in German<br>A.B. ( <i>Lombard Coll.</i> ) 1911                                     |      | Galesburg           |

\*Resigned November 28, 1913.

†Candidate for professional degree in engineering.

††Work completed with exception of thesis.



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|---------------------------------------------------------------------------------------------------|--------------------|
| Thorne, Mabel Elizabeth—Scholar in Mathematics<br>A.B., 1913                                      | Huntington, Ind.   |
| Thrift, Grace—English Literature<br>A.B. ( <i>James Millikin Univ.</i> ) 1911                     | Decatur            |
| Tippet, Ralph Waldo—Organic Chemistry<br>A.B. ( <i>Lawrence Coll.</i> ) 1913                      | Appleton, Wis.     |
| *Tohill, Louis Arthur—History<br>A.B., 1912                                                       | (SS) Farm Ridge    |
| Toland, Jessie May—English<br>A.B., 1908                                                          | Urbana             |
| Tsou, Ying Hsuwen—Entomology<br>B.S. ( <i>Cornell Univ.</i> ) 1912                                | Soochow, China     |
| M.S., 1913                                                                                        | River Forest       |
| Valentine, Howard De Witt—Chemistry<br>B.S., 1913                                                 | Zeeland, Mich.     |
| Van Zoeren, Gerrit John—Inorganic Chemistry<br>A.B. ( <i>Hope College</i> ) 1912                  | Bahawalpore, India |
| Virmani, Devi Dyal—Chemistry<br>B.S. ( <i>Stanford Univ.</i> ) 1913                               | (SS) Naperville    |
| Voegelcin, Lily Belle—Fellow in Latin<br>A.B. ( <i>Northwestern Coll.</i> ) 1912                  | Granite City       |
| A.M., 1913                                                                                        |                    |
| Waggoner, Harry Dwight—Botany<br>A.B., 1909                                                       | Urbana             |
| Waldo, Edward Hardenbergh—Electrical Engineering<br>A.B. ( <i>Amherst Coll.</i> ) 1888            | Urbana             |
| M.E. ( <i>Cornell Univ.</i> ) 1890                                                                |                    |
| M.S., 1913                                                                                        | (SS) Urbana        |
| Walworth, Edward Harvey—Agronomy<br>B.S., 1913                                                    | SS Bisbee, Ariz.   |
| Warner, Earle Horace—Physics<br>A.B. ( <i>Univ. Denver</i> ) 1912                                 |                    |
| Watson, Marguerite—English<br>A.B., 1910                                                          | Oyster Bay, N. Y.  |
| Watson, Minnie Elizabeth—Fellow in Zoology<br>A.B. ( <i>Olivet Coll.</i> ) 1909                   | Pittsford, N. Y.   |
| M.S., 1913                                                                                        | Galva              |
| Weiland, Henry Joseph—Chemistry<br>B.S. ( <i>Univ. Rochester</i> ) 1913                           | Champaign          |
| Wells, Grace Adaline—Zoology<br>B.S. ( <i>Knox Coll.</i> ) 1913                                   | Philadelphia, Pa.  |
| Wells, John Richard—Animal Husbandry<br>B.S., 1912                                                | (SS) Urbana        |
| Wesenberg, Thor Griffith—Romance Languages<br>A.B., A.M. ( <i>Univ. Pennsylvania</i> ) 1910, 1911 | Zeeland, Mich.     |
| Whitten, John Hamilton—Botany<br>A.B., A.M., 1911, 1912                                           | Mt. Vernon, Ohio   |
| Wichers, Edward—Inorganic Chemistry<br>A.B. ( <i>Hope Coll.</i> ) 1913                            | Whittier, Cal.     |
| Wilber, Allen Sage—Scholar in Political Science<br>A.B. ( <i>Kansas State Univ.</i> ) 1913        | Mattoon            |
| Wildman, Ernest Atkins—Organic Chemistry<br>B.S. ( <i>Earlham Coll.</i> ) 1912                    | Champaign          |
| Wiley, John Frederick—Education<br>Ph.B. ( <i>DePauw Univ.</i> ) 1902                             | Wilkinsburgh, Pa.  |
| Wilson, William Harold—Scholar in Mathematics<br>A.B. ( <i>Albion College</i> ) 1913              | Edwardsville       |
| Wohlenberg, Walter Jacob—Fellow in Mechanical Engineering<br>B.S. ( <i>Univ. Nebraska</i> ) 1910  | Urbana             |
| Wolf, Herman Carl—Scholar in Electrical Engineering<br>B.S., 1913                                 | SS Villa Grove     |
| Wolfe, William Sidney—Scholar in Architectural Engineering<br>B.S., 1913                          | Carthage, N. Y.    |
| Wollenhaupt, Walter Franz—Education<br>Ph.B. ( <i>Iowa Wesleyan Univ.</i> ) 1908                  |                    |
| Woodin, Mary Eastman—Latin<br>B.S. ( <i>Wellesley Coll.</i> ) 1890                                |                    |

\*Leave of absence, 1913-14.

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|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Wright, Albert Bayard—Political Science<br>B.S., A.M. ( <i>Illinois Wesleyan Univ.</i> )<br>1907, 1910                          | <i>Wenona</i>               |
| Wright, Philip Quincy—Fellow in Political Science<br>A.B. ( <i>Lombard Coll.</i> ) 1912<br>A.M., 1913                           | <i>Galesburg</i>            |
| Wyatt, Frank Archibald—Fellow in Agronomy<br>B.S. ( <i>Agricultural Coll. Utah</i> ) 1910<br>M.S., 1913                         | <i>Wellsville, Utah</i>     |
| Yapp, William Wodin—Dairy Husbandry<br>B.S., 1911                                                                               | <i>Urbana</i>               |
| *Yeaton, Fred Drinkwater—Civil Engineering<br>B.S., 1907                                                                        | <i>Cincinnati, Ohio</i>     |
| Yensen, Trygve D—Electrical Engineering<br>B.S., M.S., E.E. 1907, 1912, 1913                                                    | <i>Christiania, Norway</i>  |
| Young, Lewis Emanuel—Economics<br>B.S. ( <i>Pennsylvania State Coll.</i> ) 1900<br>E.M. ( <i>Michigan Coll. of Mines</i> ) 1904 | <i>Champaign</i>            |
| Young, Yungyen—Agronomy<br>A.B., B.S., 1913                                                                                     | (SS) <i>Nanziang, China</i> |
| Zeis, Henry Charles—Mathematics<br>A.B., 1913                                                                                   | <i>Waterloo</i>             |
| Zucker, Adolf Eduard—German Literature<br>A.B., A.M., 1912, 1913                                                                | <i>Ft. Wayne, Ind.</i>      |

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\*Candidate for professional degree in engineering.



## UNDERGRADUATE AND PROFESSIONAL COLLEGES AND SCHOOLS IN URBANA

(INCLUDING THE COLLEGES OF LIBERAL ARTS AND SCIENCES, ENGINEERING, AGRICULTURE, AND LAW, THE LIBRARY SCHOOL, AND THE SCHOOL OF MUSIC)

### ABBREVIATIONS

#### COURSES

|       |                                              |     |                                    |
|-------|----------------------------------------------|-----|------------------------------------|
| A     | Architecture                                 | LA  | Literature and Arts                |
| AE    | Architectural Engineering                    | Lb  | Library Science                    |
| Agr   | Agriculture                                  | Md  | Medical Preparatory                |
| BLA   | Business, Liberal Arts and Sciences          | ME  | Mechanical Engineering             |
| CE    | Civil Engineering                            | MnE | Mining Engineering                 |
| Cer   | Ceramics                                     | MSE | Municipal and Sanitary Engineering |
| CerE  | Ceramic Engineering                          | Mus | Music                              |
| Ch    | Chemistry                                    | RCE | Railway Civil Engineering          |
| ChE   | Chemical Engineering                         | REE | Railway Electrical Engineering     |
| EE    | Electrical Engineering                       | RME | Railway Mechanical Engineering     |
| HSAgr | Household Science, Agriculture               | S   | Science                            |
| HSLAS | Household Science, Liberal Arts and Sciences | SS  | Summer Session                     |
| L     | Law                                          |     |                                    |

| NAME                                    | COURSE     | *CREDIT<br>HOURS | RESIDENCE           |
|-----------------------------------------|------------|------------------|---------------------|
| Aagaard, Arthur Hildeman                | ME         | 110              | Chicago             |
| Abbott, Louis Asa                       | Agr        | 102½             | Morrison            |
| Abney, Bertram                          | Agr        | 100½             | Harrisburg          |
| Abrahamsen, Fred                        | LA         |                  | Chicago             |
| Acer, Donald Winchester                 | BLA        | 103              | Medina, N. Y.       |
| Acer, Katharine Edith                   | HSLAS      | 100              | Medina, N. Y.       |
| Acer, Victor Adna                       | Agr        |                  | Medina, N. Y.       |
| Ackerson, Esther Mae                    | HSLAS      |                  | Westfield, Ind.     |
| Adams, Albert Clark                     | EE         | 37               | Chicago             |
| Adams, Allan Madison                    | Agr        |                  | Rockville, Ind.     |
| Adams, Eugene Franklin                  | AE         | 121              | Ashland, Nebr.      |
| Adams, Pauline Hopkins                  | LA sp      | 22               | Grand Rapids, Mich. |
| Adams, William Calvin                   | Ch         | 104              | Watseka             |
| Adler, Leon                             | ChE        | 4                | St. Louis, Mo.      |
| Agg, Rachel, Ph.B., (Penn College) 1911 | Lb         |                  | Champaign           |
| Agg, Sarah                              | HSAgr      |                  | Champaign           |
| Agnew, Beulah Irene                     | LA         |                  | Villa Grove         |
| Ainsworth, Harry Francis                | Agr        | 50½              | Greensburg, Ind.    |
| Ainsworth, Harry Gregory                | Agr        | 94               | Mason City          |
| Ainsworth, William Howard               | Agr        |                  | Mason City          |
| Alband, Laura Anna                      | HSLAS      | 62               | Streator            |
| Albaugh, Hazen Lowell                   | LA         |                  | Oak Park            |
| Albee, Chester Leon                     | Agr        |                  | Pekin               |
| Albert, Harry D                         | L          |                  | Mansfield           |
| Albin, Harold Cornelius                 | SS         | 68½              | Washington, D. C.   |
| Albrecht, Daniel Arthur                 | S          |                  | Champaign           |
| Albrecht, William Albert, A.B., 1911    | Agr (SS)   | 172½             | Champaign           |
| Albright, Joseph Clarence               | ME         |                  | Rossville           |
| Albright, Raymond Bean                  | LA         | 100              | Minier              |
| Alden, John Leslie                      | ME         | 102              | Kalamazoo, Mich.    |
| Aleshire, Sarah Louise                  | HSAgr      | 97               | Chicago             |
| Alexander, Grace Elizabeth              | SS         | 15½              | Chicago             |
| Alexander, John Alva                    | SS         | 106½             | Amorita, Okla.      |
| Allan, Robert Howard                    | Agr        |                  | Winchester          |
| Allen, Alice Alexandria                 | HSLAS (SS) | 60               | Urbana              |

\*Computed October 1, 1913

|                                |            |      |                        |
|--------------------------------|------------|------|------------------------|
| Allen, Edith                   | SS         | 2½   | Delavan                |
| Allen, Ernest Victor           | MnE (SS)   | 65   | Pana                   |
| Allen, Harriet Horton          | HSAgr      |      | Delavan                |
| Allen, Hester Ada              | HSAgr      |      | Delavan                |
| Allen, Joe Graham              | Agr        |      | Washington, Ind.       |
| Allen, Lucy Elizabeth          | HSAgr      | 39   | Delavan                |
| Allen, Otho William            | LA         | 73   | Clinton                |
| Allen, Paul Glen               | LA         | 66   | Chicago                |
| Allen, Ruben C                 | Agr        | 113  | Montfort, Wis.         |
| Allhands, Cash Lyle            | Agr        | 58½  | Watseka                |
| Allison, Jay Malcom            | Agr        | 29   | Downer's Grove         |
| Allison, Ruth Elizabeth        | LA         | 57   | Kirkland               |
| Allison, Worth Arthur          | Agr        | 46   | Charleston             |
| Allyn, Albert Merrell          | AE         | 66   | Grants Pass, Oregon    |
| Allyn, Hester Anne             | HSLAS      |      | Modesto                |
| Almond, Harry Havens           | LA         | 20   | Anderson, Ind.         |
| Altpeter, Walter George        | ME         | 79   | Chicago                |
| Alverson, Verna May            | LA         |      | Urbana                 |
| Alvord, Genevieve Raymond      | LA         | 31   | Urbana                 |
| Alvord, Mrs. Idress Head       | LA         |      | Palmyra, Mo.           |
| Alwood, Clyde Gobel            | LA         |      | Clinton                |
| Alyea, Norma Jenness           | S          |      | Earlville              |
| Alyea, Melville Carlyle        | Agr        | 59   | Earlville              |
| Alyea, Thomas Ellwood          | LA         | 83½  | Earlville              |
| Amborn, Louise                 | BLA        | 31   | Ft. Madison, Iowa      |
| Ambrose, Arthur Samuel         | Agr (SS)   | 97   | Downer's Grove         |
| Ambruster, John Rea            | Agr        |      | Chicago                |
| Ames, Albert Carder            | Agr        | 38   | Riverside              |
| Ames, Waldo Boynton            | BLA        |      | Oak Park               |
| Amos, Douglas Jacques          | Agr        | 32   | Cairo                  |
| Amsbary, Harlow Aydelott       | ME (SS)    | 108  | Champaign              |
| Amsbary, Paul Donald           | A          | 32   | Urbana                 |
| Andarle, Emil Joseph           | Cer        | 107  | Chicago                |
| Anderson, Andrew John Albert   | CE         | 109  | Chicago                |
| Anderson, Benjamin Franklin    | L          | 32   | Charleston             |
| Anderson, Charles Wesley       | Cer        |      | Dixon                  |
| Anderson, Clarence Joseph      | BLA        | 74½  | Princeton              |
| Anderson, Clarence Scott       | Agr        | 108  | Polo                   |
| Anderson, Irving               | MSE        | 110  | Galesburg              |
| Anderson, John Henning         | CE         | 106½ | Rock Island            |
| Anderson, Joshua Clayton       | Agr (SS)   | 66½  | Williamsport, Ind.     |
| Anderson, Olive Matilda        | HSAgr      |      | Chicago                |
| Anderson, Owen Huntington      | ME         | 29   | De Kalb                |
| Anderson, Rena                 | HSLAS      | 98   | Polo                   |
| Anderson, Roy William          | Agr        | 31   | Oregon                 |
| Anderson, Walker Whitcomb      | A          | 72   | Holder                 |
| Anderson, Walter Sigfried      | CE         | 106½ | Rock Island            |
| Anderson, William French       | Agr        | 66½  | Lake Forest            |
| Ando, Ikutaro                  | BLA        | 60   | Kagawaken, Japan       |
| Andresen, Hans Henry Louis     | A          | 100  | Chicago                |
| Andrews, Chauncey Bliss        | Agr        | 105  | Chicago                |
| Andrews, Harry Lee             | SS         | 5½   | Washburn               |
| Andrews, John Asa              | Agr        | 62   | Walnut                 |
| Andrews, Nellie Eulalie        | HSAgr sp   |      | Hebron                 |
| Andrews, Roscoe Crum           | LA         | 35   | Mattoon                |
| Andrews, Sybil Elizabeth       | SS         | 8    | Hebron                 |
| Angarola, Michael Louis        | CE         | 79½  | Chicago                |
| Ansicks, David Paul            | Agr        |      | Champaign              |
| Anthony, Charles Becht         | A          | 112  | Chicago                |
| Anthony, Elizabeth Virginia    | Mus        |      | Elmhurst               |
| Apple, Charles Henry           | CE         | 113  | Peoria                 |
| Applegate, Albert Angelo       | LA (SS)    | 110  | Atlanta                |
| Applegate, Ruth Pauline        | HSLAS      | 30   | Atlanta                |
| Applegam, Clarence Oliver      | Agr        |      | Chicago                |
| Arber, Frederick Verne         | LA         | 26   | Brimfield              |
| Arbuckle, Leon                 | Agr        | 28   | Brocton                |
| Archambeault, Geraldine Muriel | HSAgr      |      | Peshtigo, Wis.         |
| Arends, Annis Lilian           | HSLAS (SS) | 3    | Greenup                |
| Arends, Arthur                 | Agr        |      | Melvin                 |
| Arias, Fenelon                 | CE sp      |      | Salta Salta, Argentina |



|                                                       |            |      |                         |
|-------------------------------------------------------|------------|------|-------------------------|
| Armington, Dorothy Maude                              | LA         | 69   | Dixon                   |
| Armistead, Ambrose Harvey Lindsay                     | Agr sp     |      | Norfolk, Va.            |
| Armour, Phillips F                                    | BLA        | 51   | Rockford                |
| Armstrong, Clifford Oakley                            | Md         | 33   | Bloomington             |
| Armstrong, Della Estelle                              | HSLAS      | 63   | Newton, Iowa            |
| Armstrong, John Harold                                | Agr        |      | Champaign               |
| Armstrong, Lennox Francois                            | ME         | 76   | River Forest            |
| Armstrong, Walter Clark                               | Agr        | 70½  | Chicago                 |
| Arndt, John August                                    | SS         | 4½   | Erie                    |
| Arnold, Howard Clinton                                | Cer        | 107  | Chicago                 |
| Arnold, Howard Shaver                                 | Agr        |      | Ottawa                  |
| Asada, Toichi James                                   | EE         | 90½  | Izushi, Tajima, Japan   |
| Asai, Seiji                                           | BLA        |      | Kyoto, Japan            |
| Ascherman, Vade Earl                                  | EE         |      | Lovington               |
| Ash, James Landreth                                   | LA         |      | Philadelphia, Pa.       |
| Ashbeck, William Louis                                | AE         | 46   | Chicago                 |
| Ashburn, Clarence Marcellus                           | S          | 87½  | West Union, W. Va.      |
| Ashley, Laurin S                                      | SS         | 26½  | Sibley                  |
| Ashman, Oscar Harold                                  | AE         |      | Elgin                   |
| Atherton, Elmer                                       | Agr        |      | Decatur                 |
| Atkin, Millicent                                      | SS         |      | Cambridgeshire, England |
| Atkins, Bessie May                                    | SS         | 39   | Evansville, Ind.        |
| Atkins, Edward Laurence                               | Agr        | 78   | Rock Falls              |
| Attebery, Homer Franklin                              | Agr        | 29   | Hillsboro               |
| Atwater, Allen Russell                                | Cer        | 82   | Lugano, Switzerland     |
| Auer, Lucile                                          | Mus        |      | Staunton                |
| Augustus, Earl Kirkwood                               | Agr (SS)   | 98½  | Urbana                  |
| Augustus, Lelah Marie                                 | HSAgr (SS) | 31   | Urbana                  |
| Augustus, Ralph Edgar                                 | Agr        | 64½  | Urbana                  |
| Austin, Barton Slade                                  | Agr        | 69½  | Woodstock               |
| Austin, Harold Emery                                  | ME         | 75   | Chicago                 |
| Auten, John Thompson                                  | Agr        | 35½  | White Hall              |
| Avery, Guy Thomas                                     | ME         |      | Three Rivers, Mich.     |
| Avery, John Madison                                   | S (SS)     | 110½ | Johnston City           |
| Avison, Clayton Coleridge                             | A          |      | Salem, Oregon           |
| Axelson, Alice Grace                                  | S (SS)     | 83½  | St. Louis, Mo.          |
| Axline, Edward Springer                               | BLA        |      | Wenona                  |
| Ayer, Thomas Parker, A.B. (Brown University) 1909     | Lb         | 6    | New York City           |
| Ayers, Lester George                                  | BLA        | 33   | River Forest            |
| Ayres, Edward Burge                                   | ME         |      | Springfield             |
| Babbitt, Eleanor                                      | HSAgr      |      | Chicago                 |
| Babcock, Basil Philip                                 | ME         |      | Chicago                 |
| Babcock, Dan                                          | AE         |      | Anderson, Ind.          |
| Babcock, Frank Roy                                    | BLA        |      | Rockford                |
| Babcock, Jennie May                                   | HSLAS      | 32   | Danville                |
| Bacher, Eugene Denby                                  | Agr sp     |      | Bronxville, N. Y.       |
| Bacher, Holland Robert                                | Cer        | 91   | Bronxville, N. Y.       |
| Bade, Charles Henry                                   | A          | 79   | Hannover, Germany       |
| Baechlor, Matilda May                                 | HSAgr (SS) | 5    | Momence                 |
| Baechtold, Elsie Louise, A.B. (Grinnell College) 1911 | Lb         |      | Talladega, Ala.         |
| Bagusin, Alexis Matthew                               | Md (SS)    | 53   | Odessa, Russia          |
| Bailey, John Willard                                  | A (SS)     | 102  | Lovington               |
| Bailey, LaForce                                       | A          | 66   | St. Charles             |
| Bailey, Linus McCowan                                 | ME         |      | Peru, Ind.              |
| Bailie, Robert Mills                                  | A          | 106  | Storm Lake, Iowa        |
| Baines, Alice Elizabeth                               | HSLAS      | 98   | Urbana                  |
| Bair, William Harry, B.S. (Ohio Northern Univ.) 1908  | SS         | 21   | Ruffsedale, Pa.         |
| Baird, Helen                                          | SS         | 8    | Indianola               |
| Baker, Alfred Michael Mark, Jr.                       | Agr        | 78½  | St. Louis, Mo.          |
| Baker, Amelia West                                    | LA (SS)    | 100  | Batavia                 |
| Baker, Gerald Clifford                                | ChE        | 32   | Bement                  |
| Baker, Harry James                                    | S          | 21   | Worthington, Ind.       |
| Baker, Helen White                                    | HSAgr      |      | Chicago                 |
| Baker, Mrs. Lena, A.B. (Missouri Wesleyan Coll.) 1898 | Mus        |      | Urbana                  |

|                                                   |          |      |                      |
|---------------------------------------------------|----------|------|----------------------|
| Baker, Otto Charles                               | BLA      |      | Dayton, Ind.         |
| Baker, Russell Parks                              | BLA      | 61   | Dayton, Ind.         |
| Baker, Walter Earl                                | BLA      | 35   | Bement               |
| Bakhshi, Sarva Rupa                               | RCE      |      | Seinagar, India      |
| Balderson, Ted Albert                             | AE       |      | Wilber, Nebr.        |
| Baldwin, Leo Starr                                | AE       | 107  | Freeport             |
| Balkema, Salome Rose                              | LA       | 31   | Chicago              |
| Ball, Frederic Dunham                             | LA       |      | Clinton              |
| Ballinger, Emma Matilda                           | LA       |      | Upper Alton          |
| Ballon, Joseph Ladd                               | ME       | 109  | Wheaton              |
| Balzèrit, Edward                                  | A        |      | Chicago              |
| Ban, Ching-ling                                   | ME       |      | Shanghai, China      |
| Ban, Seizo                                        | MnE      |      | Tokyo, Japan         |
| Bane, Frank Milton                                | Agr (SS) | 62   | Pontiac              |
| Barber, Harry Truman                              | Agr      | 93   | Pittsfield           |
| Barber, John Kenneth                              | BLA      | 5    | LaFox                |
| Barber, Orval William                             | S sp     |      | Mahomet              |
| Barber, Phil Chase                                | ME       | 122  | Chicago              |
| Barbre, Clarence                                  | Ch       | 122  | Taylorville          |
| Barclay, Herbert Thomas                           | CE       | 62   | Kansas City, Kans.   |
| Barden, Harold Edward                             | EE       | 84   | South Pasadena, Cal. |
| Bardwell, Laura Anna                              | HSLAS    | 51   | Aurora               |
| Bargh, George Holbrook                            | LA (SS)  | 101½ | Kinmundy             |
| Barker, Byrl Abbott                               | Agr      | 66   | Mazon                |
| Barker, Edward Franklin                           | ME       | 43   | Rock Island          |
| Barker, Muriel Gertrude                           | HSLAS    | 32   | Rockford             |
| Barker, William Clark                             | BLA      |      | Rock Island          |
| Barkman, Charles Pruden                           | LA       | 69   | Princeton            |
| Barler, Richard Condon                            | Agr      |      | Chicago              |
| Barlow, Ralph Linden                              | L        | 35   | Urbana               |
| Barlow, Roland Wilcox                             | ME       |      | Chicago              |
| Barman, Somendra Chandra Deb                      | LA       | 63   | Bengal, India        |
| Barnes, Harold John                               | A        |      | Joliet               |
| Barnes, Mary Grace, B.S. (Purdue University) 1894 | Lb       |      | LaFayette, Ind.      |
| Barnes, Nelle                                     | LA       | 103  | Urbana               |
| Barnes, Otis Avery                                | ChE      | 38   | Auburn               |
| Barnes, Robert Olney                              | S        | 77   | LaGrange             |
| Barnes, Russell Daniel                            | AE       | 36½  | Taylorville          |
| Barnhart, Herbert                                 | Agr      |      | Mahomet              |
| Barnum, Edmund Maginnis                           | ME       | 62   | LaGrange             |
| Barnum, Richard Fyfe                              | ME       | 32   | LaGrange             |
| Barr, Charles Lee                                 | CerE     |      | Batavia              |
| Barr, Charlotte Dexter                            | LA       | 32   | Freeport             |
| Barreau, August Mathew                            | AE       | 74½  | Bollendorf, Germany  |
| Barrett, Edwin Galbraith                          | BLA      | 34   | Des Moines, Iowa     |
| Barrick, Nelle Elizabeth                          | HSLAS    | 114  | Villa Grove          |
| Barringer, Edna                                   | LA       | 60   | Coffeen              |
| Barron, Alexander Fraser                          | ME       | 75   | Chicago              |
| Barrows, Helen Marie                              | HSAgr    | 4    | Chicago              |
| Barry, Mary Cordelia, A.B., 1912                  | SS       | 138  | Champaign            |
| Bartels, Nellie Flora                             | LA       | 48   | Edwardsville         |
| Barth, Edward Fred                                | Agr      | 46½  | Pana                 |
| Bartholow, James Summerfield                      | LA       | 29   | Mt. Vernon, N. Y.    |
| Bartlett, Harry Owen                              | A        | 35   | Eau Claire, Wis.     |
| Bartley, John Solomon                             | A        | 36   | E. Waterloo, Iowa    |
| Bartling, Henry Wilmont                           | EE       | 98   | Litchfield           |
| Barto, Harriet Thompson                           | HSLAS    | 32   | Urbana               |
| Barto, Margaret Murray                            | HSLAS    |      | Urbana               |
| Barton, Arthur Layton                             | LA       |      | Cambridge, Vt.       |
| Barton, Walter Edmund                             |          |      |                      |
| B.S., 1907                                        | ME       | 150  | Nokomis              |
| Bartz, Edwin Joseph                               | BLA      | 68   | Oak Park             |
| Basadre, Frederico                                | CE (SS)  | 107  | Lima, Peru           |
| Bass, Glenn Wallace                               | MSE      | 132  | Walnut               |
| Bass, Sam Bosserman                               | ME       |      | Fairbury             |
| Bathey, Bradford Reed                             | BLA      |      | Tiskilwa             |
| Bathey, Zilpha Curtis                             | HSLAS    | 35   | Tiskilwa             |



|                                                         |                 |      |                     |
|---------------------------------------------------------|-----------------|------|---------------------|
| Bauder, Lewis Augustus                                  | <i>Agr</i>      |      | Berwyn              |
| Bauer, Harry Lloyd                                      | <i>Agr</i>      | 109  | Champaign           |
| Bauer, Leo Michael                                      | <i>A</i>        | 111  | Horton, Kans.       |
| Baumgarten, Arthur William                              | <i>EE</i>       | 108  | Joliet              |
| Baxter, Vaughn Butler                                   | <i>Agr</i>      | 109½ | Ottawa              |
| Beach, Amy Adaline                                      | <i>LA</i>       | 105  | Champaign           |
| Beach, Francis Herman                                   | <i>BLA</i>      | 33   | Champaign           |
| Beal, Walter Hubert                                     | <i>BLA</i>      | 33   | Moline              |
| Beall, John Percival                                    | <i>LA</i>       | 70½  | Alton               |
| Bean, Lillian Bertha                                    | <i>LA</i>       |      | Urbana              |
| Bear, Chester Randall                                   | <i>BLA</i>      |      | Ludlow              |
| Beard, Ward Powers                                      | <i>Agr</i>      | 39   | Milledgeville       |
| Beardsley, Henry Scovell                                | <i>Agr</i>      |      | Kansas City, Mo.    |
| Beattie, George Wilson                                  | <i>Agr (SS)</i> | 128½ | So. Hartford, N. Y. |
| Beatty, Albert James                                    | <i>SS</i>       | 8    | Farmington          |
| Beatty, Edward Corby Obert                              | <i>LA</i>       | 31   | Quincy              |
| Beaubien, Warren Platt                                  | <i>A</i>        | 36   | Whiting, Ind.       |
| Beaumont, George Stanley                                | <i>Agr</i>      | 109  | Chicago             |
| Bebb, Edwin Adams                                       | <i>Agr</i>      | 36   | Chicago             |
| Bebb, Forrest                                           | <i>Agr</i>      | 36   | Muskogee, Okla.     |
| Beck, Martha Selma                                      | <i>LA</i>       |      | Indianapolis, Ind.  |
| Becker, Aaron Joseph                                    | <i>Ch</i>       | 54   | Spartanburg, S. C.  |
| Becker, Carl Valentine                                  | <i>ME (SS)</i>  | 20   | Springfield         |
| Becker, Harry Francis                                   | <i>Agr sp</i>   |      | Charlevoix, Mich.   |
| Becker, Lewis Michael                                   | <i>ME</i>       | 40   | Quincy              |
| Becker, Paul                                            | <i>ME</i>       |      | Berwyn              |
| Becker, Walter Henry                                    | <i>LA</i>       |      | Chicago             |
| Beebe, Christopher Keeney                               | <i>S</i>        | 101  | Chicago             |
| Beeby, Ruth Alice                                       | <i>LA</i>       | 17   | Urbana              |
| Behel, Vernon Wilbur                                    | <i>A</i>        | 24   | Lake Bluff          |
| Behel, Wesley Arthur                                    | <i>A</i>        |      | Lake Bluff          |
| Behr, Herbert Richard                                   | <i>EE</i>       | 43   | Chicago             |
| Behrensmeyer, Helen                                     | <i>LA</i>       | 62   | Quincy              |
| Beifuss, Edwin Louis                                    | <i>Agr</i>      | 60   | Chicago             |
| Beilin, David Solomon                                   | <i>Md</i>       |      | Chicago             |
| Beindorf, Paul Albert                                   | <i>ME</i>       | 36   | Litchfield          |
| Bell, Emerson DeWitt                                    | <i>EE</i>       | 68   | Arcola              |
| Bell, Kenneth Corwin                                    | <i>BLA</i>      | 5    | Robinson            |
| Bell, Leo Richard                                       | <i>MnE</i>      | 105  | Stapleton, N. Y.    |
| Bell, Neva Frances                                      | <i>S</i>        |      | Urbana              |
| Bell, Norma Elizabeth                                   | <i>LA</i>       |      | West York           |
| Belnap, Nuel Dinsmore                                   | <i>L</i>        |      | Washington, D. C.   |
| Belshaw, Charles Franklin                               | <i>ME</i>       | 37   | Rockford            |
| Bemisderfer, Mary Kathrine                              | <i>SS</i>       |      | Ashkum              |
| Bench, Stella Louise                                    | <i>S</i>        | 25   | Galena              |
| Benjamin, Harry Webb                                    | <i>Md</i>       | 99   | Chillicothe         |
| Benjamin, Merrill Glen                                  | <i>ME</i>       | 106  | Champaign           |
| Benner, Arthur Jacob                                    | <i>Cer</i>      | 65   | Chicago             |
| Benner, William Jacob                                   | <i>Cer</i>      | 66   | Chicago             |
| Bennett, Hazel Marguerite                               | <i>HSLAS</i>    | 37   | Washington          |
| Bennett, Louise Nancy                                   | <i>LA</i>       | 100  | Urbana              |
| Bennett, William Harrison                               | <i>S (SS)</i>   | 91   | Champaign           |
| Benson, Arthur Edward                                   | <i>A</i>        | 65   | Chicago             |
| Benson, Arnold Seigfrid                                 | <i>Md</i>       | 32   | Batavia             |
| Benson, Lois Pope                                       | <i>SS</i>       | 64   | Herrin              |
| Benson, Susan Truc, A.B. (Missouri Wesleyan Coll.) 1909 | <i>Lb</i>       |      | Laclede, Mo.        |
| Bentley, Beulah Beatrice                                | <i>LA</i>       | 30   | Clinton             |
| Bentley, Robert Lewis                                   | <i>Agr</i>      | 181  | Lockport            |
| Bentz, Clarence Louis                                   | <i>AE</i>       | 46   | Chicago             |
| Berg, Ben Conrade                                       | <i>LA</i>       | 30   | Crystal Lake        |
| Berge, Maurice Aurelius                                 | <i>SS</i>       | 59½  | Ransom              |
| Berger, Frances Irene                                   | <i>HSLAS</i>    |      | Carlyle             |
| Bergland, Floyd Harrison                                | <i>Agr</i>      | 108  | Wasco               |
| Bergmann, Adolph                                        | <i>ME</i>       | 123  | Chicago             |
| Bergmann, Frank                                         | <i>A</i>        | 73   | Chicago             |
| Berline, Henry Lee                                      | <i>Agr</i>      |      | White Hall          |
| Bernard, Leslie Cosby                                   | <i>A</i>        | 120  | Dayton, Ohio        |
| Bernhardt, Josephine Elizabeth                          | <i>LA</i>       | 31   | Collinsville        |

|                                                                                      |             |      |                         |
|--------------------------------------------------------------------------------------|-------------|------|-------------------------|
| Bernhardt, Pearl Anna Maria                                                          | HSLAS (SS)  | 69½  | Collinsville            |
| Berninger, Harriett Josephine                                                        | LA (SS)     | 74½  | Lancaster               |
| Berry, Edwards Hall                                                                  | EE          | 109  | Oak Park                |
| Berwald, Charles Harry                                                               | EE          | 78   | Dallas, Tex.            |
| Beshshur, Ishir Michael                                                              | Agr sp      |      | Burg Soffita, Syria     |
| Bess, Stanley John                                                                   | MnE         |      | Rosamond                |
| Bevis, Albon Ledru                                                                   | BLA         | 32½  | St. Louis, Mo.          |
| Beyer, Elizabeth Gunder                                                              | HSLAS (SS)  | 36   | Urbana                  |
| Beyer, Vera                                                                          | BLA         | 98   | Urbana                  |
| Bicknell, Fay Helen                                                                  | HSAgr       | 109  | Lovington               |
| Biddle, Harry Clarence, A.B.<br>(Wabash Coll.) 1909; A.M.<br>(Ohio State Univ.) 1912 | SS          | 13½  | Kenton, Ohio            |
| Bierbaum, Elmer Alfred                                                               | Agr         |      | Alton                   |
| Bigel, William, Jr.                                                                  | Agr         | 34   | Chicago                 |
| Bigelow, Roy St. Lawrence                                                            | ME          |      | Chicago                 |
| Bigler, Harry Edward                                                                 | BLA         | 105½ | Sigel                   |
| Bilderback, Byron                                                                    | BLA         |      | Worthington, Ind.       |
| Bilhorn, Walter Edward                                                               | CE          | 115  | Chicago                 |
| Billman, Elliott                                                                     | L           |      | East St. Louis          |
| Binder, George Frederick                                                             | Agr         |      | Aurora                  |
| Bingham, Arthur Barnes                                                               | Agr         | 63½  | River Forest            |
| Birch, Stephen Meserve                                                               | Cer         |      | Danville                |
| Birchard, John Wesley                                                                | CerE        |      | Urbana                  |
| Birkenbeuel, Clarence Edward                                                         | EE          | 33   | Peru                    |
| Bishop, Mildred Catherine, A.B.<br>(Brown Univ.) 1912                                | LA          |      | North Attleboro, Mass.  |
| Bissell, George Francis                                                              | Cer         | 71   | Winnetka                |
| Black, Henry Clugsten                                                                | BLA         |      | Macomb                  |
| Black, John Earl                                                                     | ME          | 110  | Mendota                 |
| Black, Robert Sommerville                                                            | ME          | 33   | Mendota                 |
| Black, Ward Norris                                                                   | SS          | 8    | Palestine               |
| Black, William Allison                                                               | ME          | 10   | Chicago                 |
| Blackburn, Frederick Jackson                                                         | Agr         | 115½ | Hillsboro               |
| Blackwell, Michael Joseph                                                            | Agr sp (SS) | 15   | Urbana                  |
| Blackwell, Mary Lovey                                                                | SS          |      | Urbana                  |
| Blair, Edgar Theron                                                                  | Md          |      | Chandlerville           |
| Blake, George Washington                                                             | CE          | 75   | Maywood                 |
| Bleisch, Selmar Anton                                                                | L sp        |      | Alhambra                |
| Bleuel, Marie Teresa                                                                 | S           | 39   | Chicago                 |
| Bloch, Jesse LeRoy                                                                   | Md          |      | Portland, Ore.          |
| Block, Edward Stevenson                                                              | Agr         | 31½  | Chicago                 |
| Bloom, Frederick Eller                                                               | BLA         | 32½  | Peoria                  |
| Blough, Earl Blaine                                                                  | CE          | 113  | Ft. Collins, Colo.      |
| Blue, Harry J                                                                        | SS          | 11   | Shawneetown             |
| Bluhm, Harold John                                                                   | ChE         |      | Chicago                 |
| Blum, Ethyl May, A.B. (Univ.<br>Michigan) 1907                                       | Lb          |      | Ann Arbor, Mich.        |
| Blum, Walter Joseph                                                                  | EE          | 109  | Chicago                 |
| Board, Ferdinand Allen                                                               | Ch          |      | Keokuk, Iowa            |
| Boardman, Vinson Runyan                                                              | Agr         |      | Hoopeston               |
| Bobilya, Louis Jerome                                                                | BLA         |      | Ft. Wayne, Ind.         |
| Bockemohle, Clinton L A                                                              | AE          | 67½  | Ellinwood, Kans.        |
| Bocock, Clyde Logan                                                                  | BLA         |      | Peoria                  |
| Boddy, James Peircy                                                                  | Agr         |      | Henrietta, Tex.         |
| Boettiger, Louis Angelo                                                              | LA          | 144  | Chicago                 |
| Boggess, Edith Elliott                                                               | HSAgr       | 60   | Catlin                  |
| Boggess, Homer Harrison                                                              | Agr         |      | Georgetown              |
| Boggs, Hsi-Fan                                                                       | BLA         | 41   | Shanghai, China         |
| Boghossian, Melton Horsep                                                            | CE          |      | Teheran, Persia         |
| Bogne, Arthur Reuben                                                                 | Md          | 2    | Dubuque, Iowa           |
| Bohrn, Earl Edward                                                                   | Agr         |      | Chicago                 |
| Bolander, Harold Benjamin                                                            | EE          | 123  | Glen Ellyn              |
| Bolinger, Emerson Franklin                                                           | EE          | 29   | New Holland             |
| Bollman, Jesse Louis                                                                 | Ch          |      | Springfield             |
| Bollman, Minnie Joanna, A.B.,<br>1910                                                | Lb          | 34   | Champaign               |
| Bolster, Nicholas John                                                               | EE (SS)     | 16   | Buenos Aires, Argentina |
| Bolton, Ralph Waldo                                                                  | ME sp       |      | Alpha                   |



|                                 |            |      |                    |
|---------------------------------|------------|------|--------------------|
| Bon Durant, Walter Hontoon      | BLA        |      | So. Bend, Ind.     |
| Bonham, Winnie Martin           | CE         | 32   | Macomb             |
| Bonsib, Louis William           | BLA        |      | Vincennes, Ind.    |
| Boone, George Ingels            | Agr (SS)   | 94   | Sidney             |
| Boonstra, Samuel P              | A (SS)     | 103½ | LaFayette, Ind.    |
| Booth, Chauncey LaMott          | Agr        |      | Onarga             |
| Booth, Lyman                    | LA         |      | Marshall           |
| Borget, Clara Marie Eliza       | LA         | 60   | Havana             |
| Born, Katherine Lois            | HSAgr      |      | Lintner            |
| Borton, Cecil Walden            | BLA        |      | Urbana             |
| Bose, Kumudini Kauta            | ME         | 133  | Bengal, India      |
| Boster, Minnie                  | SS         | 2    | Mt. Vernon         |
| Boston, Paul McConley           | LA         |      | Yorkville          |
| Bourassa, Reginald Pierre       | Agr        |      | Westfield, Mass.   |
| Bow, Loren Cushing              | CerE       | 74   | Detroit, Mich.     |
| Bow, Warren Edward              | CerE       | 109  | Detroit, Mich.     |
| Bowen, Evalena                  | LA         | 27   | Fruitport, Mich.   |
| Bowen, Harry Eldridge           | Agr sp     | 22   | Neponset           |
| Bowen, John Almond              | Agr sp     |      | Neponset           |
| Bower, Katharine Maxwell        | HSAgr      |      | Champaign          |
| Bower, Paul Eugene              | Agr        |      | Champaign          |
| Bowers, William Ray             | Agr        | 27   | Lanark             |
| Bowling, Benjamin Lester        | LA sp      | 8    | Stanford           |
| Bowlus, Hazel W                 | LA (SS)    | 68   | Urbana             |
| Bowlus, Marie Louise            | Mus (SS)   | 55   | Urbana             |
| Bowman, Leona Florence          | SS         | 9    | Decatur            |
| Boyd, Edith                     | LA         | 67   | Sheffield          |
| Boyd, Landon Baird              | A (SS)     | 14   | LaPorte, Ind.      |
| Boyd, Marian Cummings           | LA         |      | Sheffield          |
| Boye, Walter Fred               | LA         | 32   | St. Peter          |
| Boyer, Walter Howard            | CE         | 108  | DeSoto, Mo.        |
| Bradley, Carol                  | HSAgr      |      | Hume               |
| Bradley, Harold Smith           | AE         | 92   | Rockford           |
| Bradley, John Thomas            | LA         | 32   | St. Louis, Mo.     |
| Bradley, LeRoy                  | A          |      | Ft. Wayne, Ind.    |
| Bradley, Loyd                   | LA         | 11   | Mound City         |
| Bradley, Lucile                 | LA         | 20   | Carbondale         |
| Brady, St. Elmo                 | SS         | 5    | Louisville, Ky.    |
| Brady, William Thomas           | CerE       |      | Anna               |
| Brainard, Fred                  | RCE        | 85½  | Artesia, N. Mex.   |
| Bramlet, Homer David            | EE         |      | Eldorado           |
| Bramlet, Hubert Butler          | S          |      | Eldorado           |
| Branan, Harry Anthony           | ME         |      | Mattoon            |
| Branch, Nellie Uree, A.B., 1907 | Lb         | 28   | Champaign          |
| Branch, William Ralph           | Agr        |      | Champaign          |
| Brandner, Emil George           | S          | 41   | Chicago            |
| Brandon, Eugenie Josephine      | LA (SS)    | 32   | Farmer City        |
| Brandon, Joseph Franklin        | Agr        | 34   | Washington, Ind.   |
| Brandstetter, Joseph Mandel     | AE         | 122  | Chicago            |
| Brannon, George Raymond         | Agr sp     | 49   | Lowell, Ind.       |
| Brannon, Herbert Franklin       | L          | 56   | Streator           |
| Bratten, Arno                   | SS         | 168  | Marion             |
| Brayton, Dorothy Mae            | HSLAS (SS) | 97   | Long Beach, Cal.   |
| Brazeau, Eugene Francis         | BLA        |      | New York City      |
| BreCount, Perry                 | ME         | 58   | Decatur            |
| Breedis, John                   | ChE sp     | 36   | Goldingen, Russia  |
| Breedlove, Lincoln Bales        | ME         | 129  | Martinsville, Ind. |
| Breining, Walter Alyn           | A          | 111  | Indianapolis, Ind. |
| Breitstadt, Emma Matilda        | LA         | 30   | Quincy             |
| Brennan, Wintress               | LA (SS)    | 100  | Ogden              |
| Brentlinger, Clell McArthur     | EE         | 36   | Carlisle, Ind.     |
| Breton, John Fred               | ME         | 113  | Chicago            |
| Bridgford, Roy Oliver           | SS         | 8½   | Nora, Ind.         |
| Briggs, Flora Bernice           | HSAgr      |      | Champaign          |
| Briggs, Frank Roy               | Agr        |      | Kingston           |
| Bright, Leslie Orville          | S          | 61   | Foosland           |
| Brinkerhoff, Verne William      | ME         | 113  | Rock Island        |
| Briscoe, Lillian                | LA         |      | Westfield          |
| Bristow, George Washington      | S          | 34   | Metropolis         |

|                                    |                 |      |                    |
|------------------------------------|-----------------|------|--------------------|
| Britt, Charles Allen               | <i>Agr</i>      |      | Penfield           |
| Britt, Raymond Lewis               | <i>LA</i>       |      | Freeport           |
| Brittin, William Allan, Jr.        | <i>Agr</i>      |      | Viriden            |
| Britton, Floyd Evanston            | <i>L</i>        | 28   | Mt. Vernon         |
| Britton, William Everett           | <i>L</i>        | 59   | Mt. Vernon         |
| Broadbent, Earl Robert             | <i>ME</i>       | 70   | Chicago            |
| Broadhurst, Elizabeth Maury        | <i>SS</i>       | 2    | Little Rock, Ark.  |
| Broadhurst, Tabitha Jayne          | <i>Mus sp</i>   |      | Little Rock, Ark.  |
| Brobeck, Von Haller                | <i>Md</i>       | 30   | Hoopeston          |
| Brock, Elmer Lorin                 | <i>SS</i>       | 9    | Jeffersonville     |
| Brock, Isaac Voris                 | <i>Agr</i>      |      | Jeffersonville     |
| Brock, James Samuel                | <i>Agr</i>      | 106½ | Keithsburg         |
| Brock, William Sanford             | <i>Agr</i>      | 81   | Waynesburg, Pa.    |
| Brockmeier, Angelina Louise        | <i>HSLAS</i>    |      | Freeport           |
| Brodd, Lawrence Samuel             | <i>CE</i>       | 65   | Cambridge          |
| Broehl, Wayne Gottlieb             | <i>BLA</i>      | 104  | Pana               |
| Bromberg, Nathan                   | <i>CerE</i>     | 65   | Chicago            |
| Bronson, Roger Beckwith            | <i>BLA</i>      | 33   | Chicago            |
| Brooks, Elizabeth Maude            | <i>LA</i>       | 96   | Potsdam, N. Y.     |
| Brooks, Esther Isabel              | <i>HSLAS</i>    | 32   | Beecher City       |
| Brooks, Fannie Maria               | <i>HSLAS</i>    | 79   | Saunemin           |
| Brooks, Fred Reynolds              | <i>A</i>        | 91½  | Loogootee, Ind.    |
| Brooks, Frederick Augustus         | <i>EE</i>       | 2    | Urbana             |
| Brooks, George Roland              | <i>Agr</i>      | 57   | Paris              |
| Brooks, Oscar Franklin             | <i>Agr</i>      | 61½  | Paris              |
| Brooks, Raymond Harrison           | <i>Agr</i>      | 34   | Marion             |
| Brooks, Viola                      | <i>LA</i>       |      | Paris              |
| Brotherton, William Edgar          | <i>ME</i>       |      | Guthrie            |
| Brown, Albert Paul                 | <i>A</i>        |      | Fairo Oaks, Cal.   |
| Brown, Albert Willard              | <i>S</i>        | 36   | Tiffin, Ohio       |
| Brown, Mrs. Anna                   | <i>Mus sp</i>   |      | Urbana             |
| Brown, Bayard                      | <i>Agr</i>      | 33   | Genoa              |
| Brown, Carter Pennell              | <i>Agr</i>      |      | Normal             |
| Brown, Clair William               | <i>Agr (SS)</i> | 19½  | Greensburg, Ind.   |
| Brown, Clifford Allen              | <i>Agr</i>      | 112½ | Normal             |
| Brown, Dorothy Sargent             | <i>HSLAS</i>    |      | Geneseo            |
| Brown, Edward Sutherland           | <i>Agr</i>      | 118½ | Normal             |
| Brown, Elmer Alfred                | <i>EE</i>       | 83   | St. Louis, Mo.     |
| Brown, Elmer Arthur                | <i>ME</i>       | 79   | Urbana             |
| Brown, Harrison Paul               | <i>SS</i>       | 8    | Elkhart, Ind.      |
| Brown, Helen Dorsey                | <i>Agr</i>      | 57   | Chicago            |
| Brown, Horace Trowbridge           | <i>Agr</i>      | 138  | Quincy             |
| Brown, Howard Dexter               | <i>Agr</i>      | 106½ | Tiffin, Ohio       |
| Brown, Ina May                     | <i>LA sp</i>    |      | Indianapolis, Ind. |
| Brown, Irwin Tucker                | <i>Agr sp</i>   | 29   | Chicago            |
| Brown, James Fearon, A.B.,<br>1913 | <i>L</i>        | 23   | Urbana             |
| Brown, John Bernis                 | <i>Ch</i>       | 65   | Rock Falls         |
| Brown, John Lawrence               | <i>BLA</i>      |      | Tiskilwa           |
| Brown, John Lyman                  | <i>Ch</i>       |      | Anderson, Ind.     |
| Brown, John William                | <i>BLA</i>      |      | Indianapolis, Ind. |
| Brown, Kenneth George              | <i>BLA</i>      | 34½  | Urbana             |
| Brown, Lloyd Warfield              | <i>Agr</i>      | 79   | Jacksonville       |
| Brown, Olive May                   | <i>Mus</i>      | 87   | Champaign          |
| Brown, Pembroke Holcomb            | <i>LA</i>       | 66   | Rockford           |
| Brown, Ralph Powers                | <i>CE</i>       | 46   | Chicago            |
| Brown, Robert Rea                  | <i>BLA</i>      | 34   | Urbana             |
| Brown, Tom                         | <i>AE</i>       |      | Winnetka           |
| Brown, Waldo Reinhart              | <i>S</i>        | 61   | Miles Center       |
| Brown, William Merrill             | <i>ChE</i>      |      | Chicago            |
| Brownfield, Georgia                | <i>HS Agr</i>   |      | Urbana             |
| Brownfield, Lelah, A.B., 1900      | <i>BLA</i>      | 132  | Urbana             |
| Browning, Thomas Samuel            | <i>ME</i>       |      | Benton             |
| Brownlee, Kate St. Clair           | <i>SS</i>       | 7    | Benton             |
| Bruce, Walter Robert               | <i>LA</i>       | 44   | Blue Island        |
| Bruington, Earl Vivian             | <i>Agr</i>      | 34   | Monmouth           |
| Bruner, Mrs. Carrie Sims           | <i>S sp</i>     |      | Pontiac            |
| Bruner, Crane Simpson              | <i>CE (SS)</i>  | 80   | Urbana             |
| Brunker, Herschel Victor           | <i>SS</i>       | 4½   | Riley, Ind.        |



|                                           |         |      |                     |
|-------------------------------------------|---------|------|---------------------|
| Brunkow, Norman Ferdinand                 | LA      | 108  | Dubuque, Ia.        |
| Brunskill, Everett Robert                 | ChE     | 67   | Pontiac             |
| Brunskill, Eylar William                  | Agr     |      | Pontiac             |
| Brunson, Hazel Evelyn                     | LA      |      | Chicago             |
| Bublitz, Walter John                      | CE      | 108  | Chicago             |
| Buchanan, Kenneth                         | A       |      | Indianapolis, Ind.  |
| Buchanan, Roy Irving                      | Agr     | 124  | St. Francisville    |
| Buchen, Helen Louise                      | S       |      | Urbana              |
| Bucher, Ermane Gaylord                    | Cer     | 70   | Pontiac             |
| Buck, Oden H                              | ME      | 29   | Oblong              |
| Buck, Philip Eliot                        | CE      | 109  | Chicago             |
| Buckler, Carl William                     | S       | 73   | Metcalf             |
| Buckner, Orello Simmons                   | Cer     | 36   | Newark, N. Y.       |
| Budina, Adolph Otto                       | A       | 114  | O'Fallon            |
| Buell, Charles Clinton                    | LA      |      | Highland Park       |
| Buell, Temple Hoyne                       | A       | 35   | Highland Park       |
| Buenger, Katherine Margaret               | HSLAS   |      | Granite City        |
| Buerkin, Julius Allan                     | A       | 38   | Quincy              |
| Buhai, Abraham Samuel                     | CerE    | 33   | Chicago             |
| Buhai, Michael                            | AE      | 109  | Chicago             |
| Bull, Maude Emily                         | HSAgr   | 65   | Union Grove         |
| Bullard, Geraldine Alice                  | LA      | 117  | Mechanicsburg       |
| Bulot, Francis Henri                      | MSE     | 108  | Chicago             |
| Bumann, Albert Theodore                   | ChE     | 32   | Litchfield          |
| Bumgarner, Ruth Subina                    | LA      | 30   | McNabb              |
| Bumstead, Alice Amelia                    | HSAgr   | 112  | Dundee              |
| Bunch, Mamie                              | HSLAS   | 113  | Arcola              |
| Bundy, John Leland                        | Agr     | 31   | Tuscola             |
| Bunge, Ralph William                      | ME      | 121  | Chicago             |
| Bunting, Loyd Daniel                      | LA      | 32   | Ellery              |
| Bunting, Lyman Jesse                      | Agr     | 106  | N. Yakima, Wash.    |
| Burg, Harold Edgar                        | EE      |      | Decatur             |
| Burgan, Laverne                           | LA      |      | Ridgefarm           |
| Burger, Albert H                          | Agr     |      | Elgin               |
| Burger, Howard Jean                       | BLA     | 65   | Woodstock           |
| Burgess, Wilmot Amos                      | SS      | 5    | St. Louis, Mo.      |
| Burggraf, Carl Irvén                      | CE      | 103  | Tuscola             |
| Burgoon, David Warner                     | EE      | 37   | East St. Louis      |
| Burgston, Clyde Harold                    | Agr     |      | Moline              |
| Burke, Edmund                             | LA      |      | Milwaukee, Wis.     |
| Burke, Gertrude Frances                   | LA      | 30   | Chicago             |
| Burke, Hubert                             | Agr sp  |      | Milwaukee, Wis.     |
| Burke, Ralph                              | ME      | 110  | Three Rivers, Mich. |
| Burkhart, Paul Henry                      | ME      | 36   | Henry               |
| Burleson, Mrs. Lucy L                     | SS      |      | San Marcis, Texas   |
| Burnett, William, Jr.                     | EE      | 108½ | Decatur             |
| Burns, Ella                               | LA      | 30   | Grand Rapids, Mich. |
| Burns, Franklin Barnhart                  | LA      | 120½ | Grand Rapids, Mich. |
| Burns, Owen McIntosh                      | LA      | 31   | Danville            |
| Burrell, Beulah                           | HSLAS   |      | Effingham           |
| Burrell, Thomas Henry                     | AE      | 36   | Albion              |
| Burt, Lauren Dayton                       | BLA     |      | Savoy               |
| Burtnett, Reid Albert                     | EE (SS) | 36½  | St. Louis, Mo.      |
| Burton, Clifford Ketchum                  | BLA     |      | Oak Park            |
| Burton, Robert Alson, Jr.                 | LA      |      | Chicago             |
| Burwash, Louis Stephen                    | Agr     |      | Savoy               |
| Burwash, Mabel Estella, A.B.,<br>1913     | LA (SS) | 145  | Champaign           |
| Burwash, Ralph Samuel                     | ME      | 31½  | Champaign           |
| Burwash, Thomas Clifford                  | BLA     | 93   | Champaign           |
| Busey, Josephine Kathryn                  | LA      | 57   | Urbana              |
| Busey, Nora Jolin                         | Mus     | 23   | Urbana              |
| Busey, Mrs. Verna Kerker,<br>B.Mus., 1913 | Mus     | 156½ | Urbana              |
| Bush, Frank Avery                         | BLA     | 65   | Peoria              |
| Bushnell, Vance Link                      | A       |      | Elkhart, Ind.       |
| Butcher, Harry Chesteen                   | Agr     |      | Galesburg           |
| Butler, Charles Henry                     | EE      |      | Sullivan            |
| Butler, George Howland                    | CE      | 73   | Chicago             |

|                                        |          |      |                     |
|----------------------------------------|----------|------|---------------------|
| Butler, Jewell Cecil                   | EE       | 108  | Havana              |
| Butler, William Glenn                  | Agr      | 96½  | Cairo               |
| Butt, Harley Marion                    | CE       | 108  | Gilson              |
| Butterfield, Francis Eugene            | EE       |      | Wilmington          |
| Buttonmaker, Mark Adolph               | Cer      | 108½ | Chicago             |
| Butzer, Byrdie Blye                    | HSLAS    | 62   | Urbana              |
| Butzer, Verna Viola                    | HSLAS    | 73   | Urbana              |
| Butzow, Emma Bertha                    | LA       | 97½  | Wellington          |
| Buxton, Stanley Gerald                 | Agr      | 36½  | Wingate, Ind.       |
| Bye, Herbert William                   | L        | 28   | Chicago             |
| Byers, Hale Nicoles                    | LA       |      | Garrett, Ind.       |
| Byrne, Harriet Anne                    | HSLAS    | 97½  | Chicago             |
| Byrne, Rose Helen                      | LA       |      | Chicago             |
| Cadisch, Gordon Francis                | Agr      |      | Cleveland, Ohio     |
| Cadle, Chester Junius                  | LA       | 25   | Charleston          |
| Cadle, Hubert Atwater                  | ME       | 36   | Westfield, Mass.    |
| Caldwell, Lloyd Raymond                | Agr      | 68   | Neoga               |
| Caldwell, Mary Lathrop                 | LA       |      | Champaign           |
| Caldwell, Ruth Marie                   | LA       |      | Milford             |
| Calhoun, Preston Browne                | Agr      |      | Glencoe             |
| Calloway, Milton Lewis                 | SS       |      | Union Springs, Ala. |
| Cameron, Lawrence                      | ME       |      | Rushville, Ind.     |
| Campbell, Charles Warren               | MnE      |      | Coal City           |
| Campbell, David Joseph                 | Agr      | 54   | Urbana              |
| Campbell, Duncan McEvoy                | CE       |      | Chicago             |
| Campbell, Florence Maud                | LA       | 33   | Tolono              |
| Campbell, Florence Merlell             | HSLAS    |      | Raymond, Wash.      |
| Campbell, Grace Amelia                 | LA       | 120  | Urbana              |
| Campbell, Mary Annabel                 | HSLAS    | 16   | Albion              |
| Campbell, Mason Herbert                | Agr      |      | Elgin               |
| Campbell, William Franklin             | S        |      | Urbana              |
| Canaday, Lora Alice                    | LA       | 53½  | Winchester, Ind.    |
| Canaday, Miles Edwards                 | Agr      |      | Chicago             |
| Canfield, Mina Rose                    | Mus      |      | Holton, Kans.       |
| Canfield, Ruth Mae                     | LA       | 109  | Holton, Kans.       |
| Cannon, Paul Roberts                   | SS       | 7    | Pittsfield          |
| Canter, Mrs. Edna Maloy                | LA (SS)  | 6    | Champaign           |
| Carey, Russell Conwell                 | EE (SS)  | 24   | Pittsfield          |
| Cargill, Fredrick Chauncy              | Agr      |      | Mason City          |
| Cargill, Louise Mary                   | HSAgr    | 18   | Mason City          |
| Carius, Benjamin Harrington            | BLA      |      | Morton              |
| Carley, Paul Sterling                  | Md       |      | Urbana              |
| Carlisle, Donald Thompson              | BLA      | 34   | Elgin               |
| Carlsen, Arnold Willmore               | AE       | 69   | Chicago             |
| Carlson, Ansgar Lilius                 | Agr      |      | Batavia             |
| Carlson, Carrie Esther                 | LA       | 33   | Chicago             |
| Carlson, Grant Andrew                  | LA       |      | St. Charles         |
| Carlson, Harry Leonard                 | Agr      |      | LaSalle             |
| Carlson, Russell Lee                   | BLA (SS) | 35½  | Champaign           |
| Carnes, Mrs. Susan May                 | SS       |      | Urbana              |
| Carney, Clara Kathleen                 | LA       | 59   | Marseilles          |
| Carney, Mary Vance                     | SS       | 124  | Marseilles          |
| Carolan, Joseph Penn                   | BLA      |      | River Forest        |
| Carpenter, Charles Kneeland            | A        | 68   | Faribault, Minn.    |
| Carpenter, Jay Ira                     | L        | 33   | Rochelle            |
| Carpenter, Thomas Earle                | BLA      | 21   | Keokuk, Iowa        |
| Carr, Vernon Wesley                    | BLA      | 12   | Denison, Iowa       |
| Carrick, Oland William                 | Ch       |      | Monticello          |
| Carrier, Adela Pauline                 | Mus      | 107  | Urbana              |
| Carrier, Gerald Vincent                | BLA      | 98   | Urbana              |
| Carrier, James Albert                  | A        |      | Peoria              |
| Carrithers, Glenn Wilson               | Agr      |      | Toluca              |
| Carrithers, Ira Thomson, A.B.,<br>1908 | Agr      | 131  | Saunemin            |
| Carroll, Daniel Bernard                | SS       | 8    | Pittsfield          |
| Carroll, Franklin Otis                 | REE      | 36   | Jerseyville         |
| Carroll, James Bernard                 | AE sp    |      | Bradford            |
| Carson, Marcus Chesney                 | LA       |      | Nashville           |
| Carter, Alice                          | HSLAS    | 61   | Evanston            |



|                              |            |      |                        |
|------------------------------|------------|------|------------------------|
| Carter, Isaac Ray            | L          |      | Rossville              |
| Carter, Lucile               | HSAgr      | 87   | Plainfield, Ind.       |
| Carter, Stokely              | S          |      | Trenton                |
| Carter, Truman Post          | SS         |      | Jacksonville           |
| Carter, Walter McKinley      | BLA        |      | Ft. Wayne, Ind.        |
| Cartmill, John Rueben        | S          |      | Toledo                 |
| Cartwright, Charles Findlay  | CE         | 113  | Collierville, Tenn.    |
| Casady, Fred Simon           | CerE       |      | Anderson, Ind.         |
| Casner, Sidney               | L          |      | Calgary, Alta., Canada |
| Casserly, Joseph Bernard     | Agr        | 57½  | Champaign              |
| Cassidy, Holland Mullikin    | L          | 60   | Flora                  |
| Casteen, John Carlos         | Agr        | 36   | Versailles             |
| Castillo, Carlos Castelazo   | RCE (SS)   | 112½ | Queretaro, Mexico      |
| Castle, Richard Lloyd        | BLA        |      | Urbana                 |
| Castle, Russell D V          | CerE       | 37   | Urbana                 |
| Castro, Julio Melchor        | Agr        | 17   | Matanzas, Cuba         |
| Cater, Sumner Harris         | Agr        | 25½  | Princeton              |
| Cattell, Fred Ray            | Agr        |      | Salem                  |
| Cavette, Francis Erle        | BLA        |      | Galesburg              |
| Chabot, Kathleen Martin      | HSLAS      |      | Kankakee               |
| Chakravarty, Akhil Chandra   | ME         |      | Bengal, India          |
| Chalcraft, Lloyd Walton      | Agr        |      | Albion                 |
| Chamberlain, Wheelock Paul   | ME         | 5    | Chicago                |
| Chambers, William Harold     | Agr        | 69   | Evanston               |
| Champlin, Grace Elizabeth    | HSAgr      | 34   | Chicago                |
| Chan, Tingit Harry           | Agr        |      | Canton, China          |
| Chan, Tsung Ngok             | LA         |      | Canton, China          |
| Chand, Hari                  | EE (SS)    | 55   | Punjab, India          |
| Chaney, Zoe Gladys           | HSLAS (SS) | 60½  | Champaign              |
| Chang, Tze Li                | CE         |      | Changsha, China        |
| Chang, Whun                  | BLA        |      | Shenshaw, China        |
| Chantrey, Frederick Arthur   | ME         | 27   | Lake Forest            |
| Chapman, Edward Neal         | ChE        | 65   | Chicago                |
| Chapman, Howard Alonzo       | MnE        | 23½  | Warrensburg, Mo.       |
| Chapman, Ralph Dwyer-Clinton | BLA        | 70   | Vienna                 |
| Charni, Frederick Neal       | A          | 29   | Brookville, Ind.       |
| Chartrand, John Baptist      | EE (SS)    | 65   | East St. Louis         |
| Chase, Clarence Calvin       | ME         | 37   | Buda                   |
| Chase, Dean                  | MSE        | 113  | St. Louis, Mo.         |
| Chase, John Albion           | CerE       | 28½  | Urbana                 |
| Chase, Katherine Trusdell    | LA         | 106  | Urbana                 |
| Chatterton, John Lamphier    | LA         | 11   | Springfield            |
| Chattin, Carney Edward       | S          | 70   | Flora                  |
| Chen, Lan Sung               | BLA        |      | Peking, China          |
| Cheng, Yun Tin               | BLA        |      | Hong Kong, China       |
| Chesnutt, Ralph Cookman      | SS         | 150  | Chicago                |
| Chesrown, Leo Morelle        | ME         | 115  | Olney                  |
| Chew, Dorothy                | HSLAS      | 54   | Pueblo, Colo.          |
| Chien, Sung Shu              | S (SS)     | 116½ | Shanghai, China        |
| Chiles, Howard Marion        | Ch         | 21   | Carlinville            |
| Chipp, Mabel Blanche         | LA         |      | Sullivan               |
| Chipp, Paul L                | Agr        | 83   | Sullivan               |
| Chittenden, Robert Mearle    | Cer        |      | Brookfield, Mo.        |
| Choisser, Carl               | LA         |      | Champaign              |
| Christen, Lester Howard      | AE         |      | Elgin                  |
| Christensen, Erwin Ottoman   | A          | 132  | Chicago                |
| Christianson, Oliver Arthur  | A          | 45½  | Crookston, Minn.       |
| Christie, James              | SS         | 7    | Rantoul                |
| Christopher, Arthur Bailey   | Cer        | 26   | Canton                 |
| Christopher, Bessie Fern     | HSAgr(SS)  | 99½  | Auburn                 |
| Christy, Glen                | Mus        | 92   | Harrisburg             |
| Chu, Co-Ching                | SS         | 7½   | Shanghai, China        |
| Chuang, Tsin                 | AE         | 125½ | Shanghai, China        |
| Chubbuck, Judson Elson       | EE         | 30   | Gibson City            |
| Chumley, Eugene Edgar        | SS         | 6½   | Nokomis                |
| Chung, Hsin Hsuan            | S sp       |      | Nanchang, China        |
| Church, Leroy                | EE         |      | West Chicago           |
| Churchill, James Errol       | EE         | 109  | Mt. Carmel             |
| Chvatal, Raymond James       | CerE       | 8    | Chicago                |

|                            |            |     |                   |
|----------------------------|------------|-----|-------------------|
| Cieslik, Edmund            | CE         | 31  | Chicago           |
| Citizen, Carl Christopher  | LA         |     | Danville          |
| Claar, Elmer Allen         | LA         | 66  | Moline            |
| Clafin, Stephen Thurston   | S          | 96  | Lombard           |
| Clapp, Howard Campbell     | L          | 28  | Danville          |
| Clarida, Troy Wayne        | Agr        |     | Marion            |
| Clark, Bayard Hand         | A          | 60  | De Kalb           |
| Clark, Charles M           | RME        |     | West Chicago      |
| Clark, Chester Arthur      | Agr        | 107 | Carthage          |
| Clark, George              | Agr        | 31  | Carthage          |
| Clark, Harold Ames         | Agr        |     | Baltimore, Md.    |
| Clark, Harold Edward       | Cer        | 34  | Sterling          |
| Clark, James Holbert       | ME         |     | Mattoon           |
| Clark, James Russell       | A          | 54  | Urbana            |
| Clark, John Gunn           | A sp       |     | Memphis, Tenn.    |
| Clarke, David Roland       | BLA        | 107 | Urbana            |
| Clarke, Ethel              | HSLAS      | 122 | Noblesville, Ind. |
| Clarke, George Edward      | EE         | 31  | Noblesville, Ind. |
| Clarke, Helen Beulah       | LA         | 80  | Urbana            |
| Clarkson, Albert Jay       | EE         | 73  | Champaign         |
| Clausen, Elizabeth Johanna | HSAgr (SS) | 95  | Chicago           |
| Clayberg, Dorothea Marion  | A          | 33  | Oak Park          |
| Claycomb, Edward Denman    | Agr        | 50  | Sycamore          |
| Clayton, Harry Leslie      | Agr        |     | Kempton           |
| Clegg, Isabel              | SS         | 91  | Ottawa            |
| Cleghorn, Leila Belle      | LA         | 114 | Kankakee          |
| Clemann, Louis Hans        | ME         |     | Rock Island       |
| Clements, Esther           | HSAgr      |     | Champaign         |
| Clements, Olen Robert      | LA         | 102 | West Union        |
| Clendinen, George Emery    | SS         | 5   | Mt. Pulaski       |
| Clendinen, Henry Clay      | LA         | 21  | East St. Louis    |
| Cleveland, Ralph Charles   | Agr        |     | Rochelle          |
| Cleworth, Clarence William | Cer        |     | Anderson, Ind.    |
| Climer, Mary Ella          | S          | 98  | Palestine         |
| Cline, Bessie Florena      | LA (SS)    | 106 | Monticello        |
| Cline, Irl Reuben          | CE         | 74  | Medora            |
| Cline, Lawrence Albert     | CE         | 108 | Marion            |
| Clover, Charles William    | Agr        | 33½ | Clinton, Ind.     |
| Clover, Ira Newton         | MSE        | 72  | Gardner           |
| Clyman, David              | AE (SS)    | 70  | Chicago           |
| Cobb, Ernest William       | ME         | 34  | Chicago           |
| Cobley, Howard William     | Agr        |     | Chicago           |
| Coburn, Mildred Leann      | SS         | 16  | McLean            |
| Cochran, Charles Blake     | AE         | 63½ | Marion            |
| Cochran, Russell William   | LA         |     | Champaign         |
| Cockrell, Francis Marion   | EE         | 116 | Marshall          |
| Coddington, Lloyd Hooker   | Agr sp     |     | Princeton         |
| Codlin, Harry Ellsworth    | Agr        | 102 | Waukeee, Iowa     |
| Coe, Helen Louise          | LA         | 46  | Springfield       |
| Coen, Edward Emanuel       | Agr        | 56½ | Kentwood, La.     |
| Coffey, George Cleveland   | L          | 54  | Wayne City        |
| Coffey, Hazel Belle        | LA (SS)    | 102 | Blue Island       |
| Coffey, Margaret Leora     | LA         |     | Urbana            |
| Cogdall, Harry Frank       | Agr        | 67  | Chicago           |
| Cohagan, Chester Willard   | Agr        |     | Sapulpa, Okla.    |
| Cohen, Isidor Maurice      | AE         |     | So. Bend, Ind.    |
| Cohen, Julius              | LA         |     | St. Louis, Mo.    |
| Cohn, Alexander            | Md         | 94½ | Chicago           |
| Colbert, James Rubin       | LA         | 98½ | Fairfield         |
| Colcord, Frank Maynard     | Agr        | 97  | Greenville        |
| Cole, Hugh Leon            | Agr (SS)   | 92  | Geneseo           |
| Coleman, Henry Clay, Jr.   | ME         | 37  | Greenville        |
| Coleman, Oren              | SS         | 24½ | Carterville       |
| Coleman, Paul Wayne        | Agr        | 59  | Ipava             |
| Colgan, John Graham        | Agr        |     | Berwyn, Pa.       |
| Collier, Ethel Alice       | LA         |     | Union Grove, Wis. |
| Collins, Helen Beatrice    | HSLAS      |     | Gilman            |
| Collom, Mary Elizabeth     | HSLAS      | 69  | Urbana            |
| Colson, Harold Edward      | Agr        | 67½ | St. Charles       |



|                                                       |          |      |                      |
|-------------------------------------------------------|----------|------|----------------------|
| Colton, Edwin Thome                                   | MSE      |      | Kansas City, Mo.     |
| Comstock, Daniel Franklin                             | BLA      | 75   | Evanston             |
| Comstock, Helen Bell                                  | HSLAS    | 97   | LaGrange             |
| Comstock, Ralph Wrigley                               | S        |      | Monmouth             |
| Conat, Mabel Louise, A.B.<br>(Univ. of Michigan) 1909 | Lb       | 10   | Detroit, Mich        |
| Conboy, Lourde Joseph                                 | EE       | 105  | Sterling             |
| Condit, Irene                                         | Mus sp   |      | Champaign            |
| Concfray, Hal Wynan                                   | BLA      | 67   | LeRoy                |
| Conklin, Bristol                                      | Md       |      | Earlville            |
| Conklin, Paul Stanley                                 | ME       | 37   | Roscoe               |
| Conley, David Oris                                    | Md       | 33½  | Streator             |
| Conley, Frances Irene                                 | LA       |      | Arcola               |
| Conrad, Alma Bertha                                   | SS       | 77   | Altamont             |
| Conrad, Laura A                                       | SS       | 8    | Altamont             |
| Conrad, Orien Ray                                     | SS       | 7½   | Vandalia             |
| Consoer, George Otto                                  | CE       | 3    | Oak Park             |
| Cook, Austin Clarence                                 | Agr      | 45   | Iron Mountain, Mich. |
| Cook, Eugene                                          | CE       | 19½  | Odin                 |
| Cooley, Ray Claiborne                                 | Agr      |      | Clinton              |
| Coolidge, William Anderson                            | Agr      | 23   | Helena, Ark.         |
| Coolley, E Burt                                       | Agr sp   |      | Danville             |
| Coombs, George                                        | Agr sp   |      | Chicago              |
| Cooper, Charles Edward                                | Agr      | 31   | Carlisle, Ind.       |
| Cooper, David William                                 | EE       | 32   | Astoria              |
| Cooper, Delmar Gilbert                                | CE       | 31   | Hoopeston            |
| Cooper, Edward Alden                                  | ME (SS)  | 69   | LaGrange             |
| Cooper, Joseph Hillis                                 | LA       |      | Chicago              |
| Cooper, Kenneth Lupton                                | CE       | 70   | LaGrange             |
| Cooper, Percy Fenimore                                | ME       | 97   | Waldron              |
| Cope, Lorin Vaughan                                   | Agr      |      | Tonti                |
| Copenhaver, Robert George                             | Agr      |      | Polo                 |
| Copley, Beatrice Virginia                             | LA (SS)  | 79   | Joliet               |
| Copper, Robert Elmer                                  | Agr      |      | San Jose             |
| Corbly, Lynn                                          | L        | 28   | Urbana               |
| Cordell, Eula Ethelyn                                 | LA       |      | Macomb               |
| Cordell, Ralph Vail                                   | SS       | 6    | Galesburg            |
| Cordell, Vail                                         | SS       | 112½ | Macomb               |
| Corke, Harold Winfred                                 | BLA      |      | Evanston             |
| Corly, Seymour                                        | CE       | 74   | Decatur              |
| Cornell, Donald Sidney                                | ME       |      | Western Springs      |
| Corzine, Dale Clair                                   | Agr      |      | Assumption           |
| Cottingham, Nora                                      | LA (SS)  | 8    | Fairbury             |
| Coultas, Charles Rufus                                | Agr      |      | Virden               |
| Coultas, Florence Avis                                | LA       | 95   | Sycamore             |
| Countryman, Irving Byron                              | BLA      |      | Dixon                |
| Courtney, Joseph Frank                                | Md       |      | Antelope, Mont.      |
| Cover, Hazel Winifred                                 | Mus sp   |      | Pau Pau              |
| Covey, Areto Caroline                                 | LA       | 103  | Macon, Miss.         |
| Covey, John Ellsworth                                 | Agr      | 34½  | Bloomington          |
| Cowgill, Clinton Harriman                             | A        | 65   | Topeka, Kans.        |
| Cox, Anna Ethel                                       | SS       | 130  | Sandwich             |
| Cox, Clarence Cyrus                                   | Agr      |      | Marion               |
| Cox, Claude Gaylord                                   | Agr (SS) | 65½  | Macomb               |
| Cox, Fred H                                           | BLA      |      | Normal               |
| Cox, Henry Ray                                        | Agr      |      | St. Louis, Mo.       |
| Cox, Rex Warfield                                     | Agr      | 106½ | Bement               |
| Coyle, Cassius Marcellus                              | BLA      | 33   | Gridley              |
| Coyle, Edward Martin                                  | ME       |      | Angelica, N. Y.      |
| Crabb, Warren Willis                                  | Agr      | 88½  | Delavan              |
| Craft, Glenn Ewing                                    | Agr      | 94   | Burlington           |
| Craig, Edward Eugene                                  | SS       | 40   | Medford, Mass.       |
| Craig, Hazel Iona, A.B., B.Mus.<br>1910, 1912         | Mus      | 265½ | Champaign            |
| Craig, James Orville                                  | SS       | 82½  | Carthage             |
| Craig, Miriam                                         | SS       |      | Shelbyville          |
| Craigmile, Mary Agnes                                 | LA       | 3½   | Rantoul              |
| Craigmile, Robert James                               | EE       | 3    | LaGrange             |
| Crain, Chester McElfresh                              | BLA (SS) | 82   | Urbana               |

|                             |                    |      |                         |
|-----------------------------|--------------------|------|-------------------------|
| Crain, John Allan           | <i>Agr sp (SS)</i> | 2½   | Urbana                  |
| Crane, Dudley Winthrope     | <i>Agr</i>         | 31   | Montclair, N. J.        |
| Crawford, Chalmers Woodruff | <i>Agr</i>         | 72   | Pontiac                 |
| Crawford, Clementine        | <i>SS</i>          | 7    | Tolono                  |
| Crawford, Helen Lucile      | <i>S</i>           | 63   | Urbana                  |
| Crawford, James Lewis       | <i>Ccr</i>         |      | Macomb                  |
| Crawford, Ruth Marguerite   | <i>LA</i>          |      | Urbana                  |
| Crawford, William Kinney    | <i>BLA</i>         |      | Pinckneyville           |
| Crawford, Woodruff Lynden   | <i>Md</i>          |      | Pontiac                 |
| Crebs, John Powell          | <i>Agr</i>         | 31   | Carmi                   |
| Creighton, Edward Woodin    | <i>Agr</i>         | 61   | Fairfield               |
| Creighton, Mary             | <i>LA</i>          | 68   | Fairfield               |
| Creighton, Mary Elizabeth   | <i>HSAgr</i>       | 17½  | Phoenix, Ariz.          |
| Cressey, Lucretia           | <i>S</i>           | 60   | Mattoon                 |
| Cripe, Frank Eudorous       | <i>BLA</i>         |      | Chicago                 |
| Criss, Edward               | <i>Agr (SS)</i>    | 21   | Pittsfield              |
| Crittenberger, George Dale  | <i>LA</i>          | 86   | Anderson, Ind.          |
| Crofts, Carson              | <i>BLA</i>         |      | LaGrange                |
| Croll, Hilda Marion         | <i>HSLAS</i>       | 32   | Beardstown              |
| Crombie, Robert John        | <i>BLA</i>         |      | Peoria                  |
| Cromwell, Myrtle Cornelia   | <i>HSLAS</i>       | 19   | Cleveland, Ohio         |
| Cromwell, William Foree     | <i>S</i>           | 43   | Frankfort, Ky.          |
| Cronk, Clara Gladys         | <i>HSAgr (SS)</i>  | 105  | Aurora                  |
| Crooks, Harold Fordyce      | <i>SS</i>          | 11   | Urbana                  |
| Crosby, Henry Fay           | <i>Agr</i>         | 38½  | Detroit, Mich.          |
| Croze, John Olis            | <i>Agr</i>         | 90½  | Thorntown, Ind.         |
| Cross, George Arthur        | <i>Agr</i>         | 30½  | Polo                    |
| Crow, Jennie                | <i>SS</i>          | 4½   | Martinsville            |
| Crowe, Thomas Augustus, Jr. | <i>LA</i>          |      | East St. Louis          |
| Crowther, Sarah             | <i>LA</i>          | 36   | New York City           |
| Crull, George Matthew       | <i>Agr sp</i>      |      | Seward                  |
| Cruse, Ralph Edward         | <i>Agr</i>         |      | Salem                   |
| Crutcher, Walter Louis      | <i>EE</i>          |      | Springfield, Mo.        |
| Crutchfield, William        | <i>A</i>           | 65   | Chattanooga, Tenn.      |
| Cruzan, Myrtle Amy          | <i>LA (SS)</i>     | 91½  | Mattoon                 |
| Cryder, John Henry          | <i>Agr</i>         |      | Plainfield              |
| Cryder, Edna Mary           | <i>LA</i>          |      | Plainfield              |
| Cullinane, George Madill    | <i>ME</i>          | 6    | St. Louis, Mo.          |
| Culmer, Bruce Nutter        | <i>EE</i>          | 29   | Martinsville, Ind.      |
| Culp, John Dewitt           | <i>CE</i>          | 54   | LaGrange, Ind.          |
| Cummings, Harold Lane       | <i>BLA</i>         | 64   | Clinton                 |
| Cummings, Marston           | <i>Agr sp</i>      |      | Chicago                 |
| Cummings, Wesley Erett      | <i>L</i>           | 28   | Olney                   |
| Cummings, James Russell     | <i>Agr sp</i>      | 8½   | Springfield             |
| Cunningham, Opal Claree     | <i>LA</i>          |      | Urbana                  |
| Cunningham, Sterling Ross   | <i>LA</i>          |      | Bismarck                |
| Curl, Charley Edmund        | <i>ME</i>          | 37   | Paris                   |
| Currie, John Arthur         | <i>LA</i>          |      | Loda                    |
| Currie, Nannie              | <i>LA</i>          | 32   | Loda                    |
| Currier, Donald Eugene      | <i>Agr</i>         | 60   | Aurora                  |
| Curtis, Burton Tuttle       | <i>Agr</i>         | 20   | Decatur                 |
| Curtis, Hazel Birdelle      | <i>HSAgr</i>       |      | Woodland                |
| Curtiss, George             | <i>Agr</i>         | 34   | Stockton                |
| Curtiss, Ralph Edwin        | <i>Agr</i>         |      | Marengo                 |
| Cushman, Charles Weever     | <i>CE</i>          |      | Poseyville, Ind.        |
| Cuskaden, Major             | <i>Agr</i>         |      | Arcola                  |
| Cuthbert, Dorothy Lucile    | <i>LA</i>          | 67   | Gilsum, N. H.           |
| Cutler, John                | <i>ME</i>          | 113  | Pana                    |
| Cutshall, Harriet Monroe    | <i>Mus</i>         |      | Brazil, Ind.            |
| Cutshall, Rudolph Walter    | <i>A</i>           | 124  | Brazil, Ind.            |
| Cutting, Harold Stothard    | <i>ME</i>          | 67   | Rockford                |
| Cylkowski, Vincent Dominic  | <i>CE</i>          | 71   | Chicago                 |
| Dace, Fred Edwin            | <i>EE</i>          | 104½ | Rushville               |
| Da Costa, Manoel Ferrura    | <i>EE</i>          | 41½  | Cortiba, Pavana, Brazil |
| Dadant, Harriette Gabriel   | <i>HSLAS</i>       |      | Hamilton                |
| Dale, Herve Miller          | <i>SS</i>          | 138  | Winnetka                |
| Dale, John Herman           | <i>Agr</i>         |      | Mt. Vernon              |
| Dalenberg, Clarence         | <i>AE</i>          | 34   | South Holland           |
| Dallenbach, Grace Belle     | <i>HSLAS</i>       | 33   | Champaign               |



|                                                                           |          |      |                      |
|---------------------------------------------------------------------------|----------|------|----------------------|
| Dallenbach, John Henry                                                    | EE       | 111  | Champaign            |
| Dallenbach, Maybelle May                                                  | HSAgr    |      | Champaign            |
| Daly, Ewing Porter                                                        | ME       |      | Ottawa               |
| Damisch, Marcus William                                                   | Agr      |      | Gilberts             |
| Dammers, John William                                                     | S        | 65   | Chicago              |
| Daniels, Harry Charles                                                    | S        |      | Elgin                |
| Danielson, Ralph Raymond                                                  | Cer      | 114  | Chicago              |
| Danz, Harry Otto                                                          | ME       | 110  | Peru                 |
| DaPrato, Neno Joseph                                                      | Agr      | 60   | Iron Mountain, Mich. |
| Darby, Harry, Jr.                                                         | ME       |      | Kansas City, Kans.   |
| Darrell, George Charles                                                   | AE       |      | Chicago              |
| Dass, Banesvar                                                            | ChE      | 112  | Bengal, India        |
| Dasso, Luis                                                               | A        | 21½  | Lima, Peru           |
| Dauberman, Margarete Lucile                                               | LA       | 55   | Mansfield            |
| Daugherty, Hale Plahn                                                     | BLA (SS) | 107½ | Peoria               |
| Davenport, Alice Victoria                                                 | LA       | 99   | Wheaton              |
| David, Jesse Mirza                                                        | LA       |      | Chicago              |
| Davidson, Blaine                                                          | LA       |      | Sparland             |
| Davies, Raymond Evan                                                      | Md       | 91   | Bement               |
| Davis, Clara Elizabeth                                                    | Mus      | 33   | Urbana               |
| Davis, Earl Thomas                                                        | Agr      | 4    | Chicago              |
| Davis, Elizabeth Hamilton, A.B.<br>( <i>Illinois Woman's Coll.</i> ) 1909 | Lb       | 31   | Carbondale           |
| Davis, Eugene John                                                        | Agr      |      | Chicago              |
| Davis, Frederick Abram                                                    | Agr      |      | Cherry Valley        |
| Davis, George Robert                                                      | EE       |      | Mt. Sterling         |
| Davis, Harry Roscoe                                                       | LA       | 18   | Anna                 |
| Davis, Helen Powers                                                       | HSLAS    |      | Holton, Kans.        |
| Davis, Leonard Hoadley                                                    | Agr      |      | Huron, S. D.         |
| Davis, Leonard Louis                                                      | CE       | 8    | Freeport             |
| Davis, Milton Russell                                                     | Agr      |      | Chicago              |
| Davis, Paul Newhall                                                       | Agr      | 61½  | Arlington Heights    |
| Davis, Raymond Ellis                                                      | LA       |      | Danville             |
| Davis, Redman Brown                                                       | BLA      |      | Champaign            |
| Davis, Rupert Foster                                                      | S        | 20   | Atlanta, Ga.         |
| Davis, Samuel Sylvester                                                   | Agr      | 75   | Newport, Ind.        |
| Davis, Thomas Andrew                                                      | CE (SS)  | 110  | Bethany              |
| Davis, William George                                                     | Agr sp   |      | Springfield, Mo.     |
| Davison, Charles Marshall                                                 | Md       |      | Chicago              |
| Dawson, Helen Mamie                                                       | LA       | 64   | Morris               |
| Dawson, Louis Edward                                                      | ChE      |      | Springfield          |
| Day, Curtiss LaQ                                                          | LA       |      | Gibson City          |
| Day, Harry Warren                                                         | Agr      |      | Shelbyville          |
| Day, Pauline Edger                                                        | LA       | 42   | Dunkirk, Ind.        |
| Day, Vincent Stephen                                                      | ME       | 1½   | Springfield          |
| Day, Walter Thomas                                                        | L sp     |      | Springfield          |
| Deakman, Homer Ward                                                       | CE       | 75   | Chicago              |
| Dean, Beatrice Earle                                                      | LA (SS)  | 93   | Harrisburg           |
| Deaver, Lister Alward                                                     | Cer      | 117  | Bloomington          |
| Dechman, Mrs. Arthur                                                      | HSLAS    | 98½  | Evanston             |
| Decker, Benjamin Harrison                                                 | EE (SS)  | 74   | Brazil, Ind.         |
| Deets, Harold Burton                                                      | Agr      | 122½ | Galesburg            |
| DeForest, Lemuel                                                          | ME       | 111½ | Toledo, Ohio         |
| Degen, Albert Gustav                                                      | AE       | 37   | Kansas City, Mo.     |
| Deiss, William Charles                                                    | EE       | 68   | Carlinville          |
| Delahunty, Arthur Francis                                                 | LA sp    |      | Decatur              |
| DeLany, Russell Wetzell                                                   | ME       | 10   | Chicago              |
| DeLong, Charley Townsend                                                  | Agr sp   |      | Foosland             |
| DeLong, Willard Earl                                                      | BLA      | 18   | Foosland             |
| DeMott, Roy VanLiew                                                       | BLA      | 98   | Crookston, Minn.     |
| Dempster, Charles                                                         | ME       | 37   | Chicago              |
| Demuth, Jack Erwin                                                        | CE       | 75   | St. Louis, Mo.       |
| Denhart, William Bruce                                                    | BLA      |      | Champaign            |
| Denick, Milo Frank                                                        | ME       |      | Lockport             |
| Denison, Sidney Alexander                                                 | SS       | 16   | Bridgeport           |
| Denney, Helen Ruth                                                        | Mus      | 39   | Aurora               |
| Dennis, Rose Carolyn                                                      | HSLAS    |      | Glencoe              |
| Dennis, William Andrew                                                    | SS       | 40½  | Chicago              |
| Denton, Herschel Palmer                                                   | CerE     |      | Hamilton             |

|                                |          |      |                             |
|--------------------------------|----------|------|-----------------------------|
| Denz, Raymond Edward           | LA       | 34   | Decatur                     |
| Derby, Harold Leslie           | CE       | 37½  | Springfield                 |
| Derby, Sylvester Randall       | CE (SS)  | 72   | Morgan Park                 |
| De Swarte, Clarence Gordon     | EE       | 107½ | Chicago                     |
| Detering, Oscar Casper         | BLA      | 58   | St. Louis, Mo.              |
| Devine, Herbert                | ME       | 110  | Ishpeming, Mich.            |
| Devlin, John Lester            | MnE      |      | Chicago                     |
| Dewey, Elmer Clarence          | BLA      |      | Rockford                    |
| Dewey, Vivian Persis           | LA       | 95   | Kenosha, Wis.               |
| DeWolfe, Mary Estella          | LA       | 96   | Assumption                  |
| Dexter, Lula Belle             | LA       | 134  | Urbana                      |
| Dibble, Sue                    | SS       | 6½   | Aurora, Oregon              |
| Dibell, Harry Charles          | BLA (SS) | 27   | Wolcott, Ind.               |
| Dick, Clyde Danforth           | S        |      | Chicago                     |
| Dick, Harry Kimball            | AE       | 124  | Bloomington                 |
| Dickerson, Earl Burns          | SS       | 130½ | Canton, Miss.               |
| Dickhut, Sherrill Edward       | AE       | 35   | Quincy                      |
| Dieckmann, Thomas Wilbur       | BLA      | 94½  | Wagoner, Okla.              |
| Dieffenbacher, Martha Mitchell | SS       | 8    | Havana                      |
| Dietmeier, Clarence Richard    | BLA      | 33½  | Winslow                     |
| Dietzer, Alice Margaret        | HSLAS    | 66   | LaGrange                    |
| Diggs, Charles Henry           | Agr      | 97   | Clear Lake, Iowa            |
| Dikis, Alfred                  | Agr sp   |      | Waverly                     |
| Dillavou, Essel Ray            | BLA      | 70   | Champaign                   |
| Dille, Lavina Faye             | HSAgr    | 28   | Grand Ridge                 |
| Dillon, Owen O'Neil            | L        | 26   | Shipman                     |
| Dippell, Carl Bush             | BLA      |      | Freeport                    |
| Dippell, Ralph Ellsworth       | BLA      |      | Freeport                    |
| Dirks, Bernhard Ernst George   | A        | 93½  | Koetyschenbroda,<br>Germany |
| Dirks, Hugo Bernhard           | EE       |      | Koetyschenbroda,<br>Germany |
| Dirst, Paul Kenneth            | Agr sp   |      | Minooka                     |
| Dix, Earl Joseph               | EE       | 70   | Marseilles                  |
| Dixon, Harriett B              | SS       | 6    | Havana                      |
| Dobbins, Verne Foster          | EE       | 77   | Urbana                      |
| Dodds, Eva                     | LA       | 99   | Champaign                   |
| Dodds, Josephine               | LA       |      | Champaign                   |
| Dodds, Lois Ellen              | LA (SS)  | 35   | Champaign                   |
| Dodds, Marie Marguerite        | LA       | 72   | Champaign                   |
| Dodge, Hovey Worsdell          | CE       | 37   | Chicago                     |
| Dodge, Margaret Rapelje        | LA       | 29   | Champaign                   |
| Doemling, Leo William          | ME       | 48   | Chicago                     |
| Doherty, Francis Laurence      | Agr      | 29   | Urbana                      |
| Doherty, Margaret Isabella     | Mus      | 40   | Urbana                      |
| Doisy, Edward Adelbert         | Md (SS)  | 117  | Champaign                   |
| Dolan, James Leo               | Agr      |      | Champaign                   |
| Dole, Ethel Mary               | HSAgr    | 63½  | Urbana                      |
| Dole, Laura Emily              | Mus      |      | Urbana                      |
| Dole, Lillian Dora             | S        | 67½  | Urbana                      |
| Domas, Justin Aloysius         | S        | 95   | Shelbyville                 |
| Donahoe, John Thomas           | EE       | 108  | Chicago                     |
| Donahue, William Dale          | BLA      |      | So. Bend, Ind.              |
| Donaldson, Elyzabeth Frances   | S (SS)   | 104½ | Urbana                      |
| Donaldson, Harold James        | Agr      | 31   | Polo                        |
| Donaldson, William Henry       | CE       |      | Joliet                      |
| Donn, Merrill Carr             | S        |      | Chicago                     |
| Donovan, James Leslie          | CE sp    |      | Champaign                   |
| Dooley, Hubbard Errett         | BLA      | 104  | Rock Island                 |
| Doremus, Walter Louis, Jr.     | Agr sp   |      | Montclair, N. J.            |
| Dorr, Mabery Iris              | Mus      | 14   | Rantoul                     |
| Dorris, Harry William          | EE       |      | Harrisburg                  |
| Dorris, Sylvanus Alpheus       | SS       | 16   | Isabel                      |
| Dorschler, Leonard Leslie      | ME       | 6    | Chicago                     |
| Dosher, Guy Hudson             | CE       | 7    | Harrisburg                  |
| Dougherty, Horace Gladstone    | SS       | 16½  | Washington                  |
| Doughty, Anna Pond             | LA       | 22   | Joliet                      |
| Douglas, Matie Frances         | SS       | 7    | Joliet                      |
| Douglas, Raymond Thomas        | ME       | 116½ | Southampton, Mass.          |



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|-------------------------------------------|-------------|-----|---------------------|
| Dow, Harvey Richard                       | BLA         | 27  | Geneva              |
| Downey, Durbin Ralph                      | Agr         | 30  | Sheffield           |
| Doyle, John Francis                       | BLA         | 23  | Champaign           |
| Dralle, Henry Edward                      | EE          | 36  | Coatsburg           |
| Draper, Arthur William                    | LA          |     | Chicago             |
| Draper, Laurence Francis                  | ME          |     | Clinton             |
| Dresser, Myron Amos                       | BLA         | 33  | New Berlin, N. Y.   |
| Drew, Mildred Evangeline                  | LA          | 57  | Joliet              |
| Droste, Louis Anthony                     | BLA         | 40  | Grand Rapids, Mich. |
| Dubin, George Harold                      | A           | 115 | Chicago             |
| Dubin, Henry                              | A           | 76  | Chicago             |
| Dubois, Henri                             | Agr         | 128 | Utrecht, Holland    |
| DuBois, Lenore                            | Mus         |     | Peoria              |
| DuBois, Martha Harriet                    | SS          | 65  | Eldorado            |
| Dudley, Paul Alonzo                       | LA          |     | Canton              |
| Duffy, John Clarence                      | Agr         | 42  | Ottawa              |
| DuHadway, Fred Alan                       | L           | 28  | Jerseyville         |
| Duke, Harrison Reed                       | Md          |     | Chicago             |
| Dunavan, Frank Leroy                      | CE          | 55  | Ottawa              |
| Duncan, Richard Forrester                 | Agr         |     | Chicago             |
| Duner, Swen                               | Agr         | 63½ | Wheaton             |
| Dungan, George Harlan                     | Agr         |     | Richwood, Ohio      |
| Dunham, Edward                            | Agr         |     | Oak Park            |
| Dunham, Lawrence Henry                    | ChE         | 67  | LaSalle             |
| Dunham, Raymond Starr                     | Agr         | 133 | Chicago             |
| Dunlap, David Woods                       | Agr         | 69  | O'Fallon, Mo.       |
| Dunlap, Fanny, Ph.B. (Univ. of Iowa) 1905 | Lb          | 44  | Champaign           |
| Dunlap, Francis Ellsworth                 | A           | 35½ | Maywood             |
| Dunlap, Marcia                            | LA          | 17  | Champaign           |
| Dunlap, Mathew Elbridge                   | AE (SS)     | 106 | Maywood             |
| Dunlap, William Guy                       | BLA         | 92  | Abingdon            |
| Dunlop, Leonard Eugene                    | A           |     | Urbana              |
| Dunn, Elizabeth Moore                     | LA (SS)     | 84½ | Bellflower          |
| Dunn, Ulys Stephen                        | EE          |     | Dorrisville         |
| Dupre, Valentine Harry                    | EE          |     | Chicago             |
| Dupuy, Genevieve                          | LA          | 63  | Chicago             |
| Dupuy, Mary Elizabeth                     | LA          |     | Chicago             |
| Durfey, Donald                            | LA          |     | Tolono              |
| Durr, Samuel Abraham                      | Md          | 37  | Chicago             |
| Durst, Louis Hugo                         | Agr sp      |     | Quincy              |
| Dutton, Hubert Buel                       | ME          |     | Oak Park            |
| Dutton, Marshall Simeon                   | MSE (SS)    | 73  | Oak Park            |
| Duyvis, Edward George                     | Agr sp      |     | Utrecht, Holland    |
| Dwyer, Ellen Frances                      | SS          | 5½  | Charleston          |
| Dyer, Arthur Alfred                       | LA          |     | Washington, D. C.   |
| Dysart, Benjamin Quincy                   | Md          | 36  | Granville           |
| Dykeman, Audrey                           | SS          | 73  | Streator            |
| Eade, Ben Cooper                          | Agr         | 34  | Elizabeth           |
| Earhart, Charles Martin                   | A (SS)      | 71  | Urbana              |
| East, Bess                                | LA          | 33  | Anderson, Ind.      |
| Eaton, Homer Tait                         | ME          |     | Champaign           |
| Eaton, Rex Carr                           | Agr         | 32  | Greeley, Colo.      |
| Eckstein, Henry Charles                   | Ch          | 93½ | Peoria              |
| Eddy, Josephine Viola                     | LA          |     | Zion City           |
| Eddy, William Chaffee                     | LA          |     | Shelbyville         |
| Edgar, Edith                              | LA          | 65  | Copenhagen, N. Y.   |
| Edmundson, Jessie Fay                     | SS          | 130 | Balbec, Ind.        |
| Edwards, Morgan Fred, Jr.                 | Agr         | 35½ | Chicago             |
| Edwards, M Reece                          | Agr sp (SS) |     | Urbana              |
| Egan, Sidney Blake                        | ME          |     | Chicago             |
| Eggert, Glenn Hallis                      | EE (SS)     | 21  | Canton              |
| Ehrlich, Max                              | Md          |     | Chicago             |
| Eicher, Eugenia                           | HS Agr      | 30  | Chicago             |
| Eide, Alwin Clyde                         | ChE         | 68  | Lec                 |
| Ekstrand, Henry Emanuel                   | A           | 60  | Waukegan            |
| Elder, Alice Mildred Roach                | LA          |     | Argenta             |
| Elder, Carey Davis                        | Agr         |     | Boaz, Ala.          |
| Elder, Mary Esther                        | SS          |     | Norristown, Pa.     |

|                                                                |         |      |                         |
|----------------------------------------------------------------|---------|------|-------------------------|
| Elder, Robert Carl                                             | CE      | 18   | Hamilton                |
| Eleazarian, Aram Movses                                        | EE      |      | Teheran, Persia         |
| Eleson, Eugene Robert                                          | ChE     |      | Elkhart, Ind.           |
| Elles, Edward Charles                                          | BLA     | 68   | Herrin                  |
| Elliott, Arthur Roland                                         | Agr     | 31   | Tonica                  |
| Elliott, Dana Milton                                           | ME      | 3    | Matteson                |
| Elliott, Robert Tollington                                     | RCE     |      | Wilmington              |
| Ellis, Charles Joseph                                          | L       |      | Springfield             |
| Ellis, Charles Lyman, A.B., 1910                               | SS      | 146  | Urbana                  |
| Ellis, Frances Irene                                           | HSLAS   | 10   | Altamont                |
| Ellis, George Curtis                                           | Md (SS) | 95½  | Altamont                |
| Ellis, Harvey                                                  | BLA     | 34   | Evanston                |
| Ellis, Hazel Annette                                           | LA      | 51½  | Chicago                 |
| Elmendorf, Armin                                               | ME      | 136  | San Antonio, Texas      |
| Elton, Alexander Stuart                                        | ME      | 33   | Oak Park                |
| Emigh, Hazel Lenore                                            | LA      | 58   | Knox, Ind.              |
| Emmond, Wyatt Goen                                             | BLA     |      | LaGrange                |
| Emmons, Mildred Louise                                         | LA      |      | Kansas City, Mo.        |
| England, Grace Adelaide, A. B.<br>(Albion Coll.) 1910          | Lb      | 13   | Detroit, Mich.          |
| Engle, Jeannette Morrison                                      | LA      | 64   | Urbana                  |
| Engle, Ralph Nelson                                            | BLA     | 57   | Urbana                  |
| Engle, Robert Henry                                            | Agr     |      | Freeport                |
| English, Hubert Morton                                         | Md (SS) | 110  | Urbana                  |
| English, Lloyd Hayden                                          | Md      | 51   | Chicago                 |
| Eninger, Helen Marie                                           | LA      | 70   | Bement                  |
| Ennis, Callistus James                                         | BLA     | 106  | Chicago                 |
| Ensign, Newton Edward, A.B.<br>(Oxford Univ.) 1908; B.S., 1911 | SS      | 153½ | Altamont                |
| Eppinger, John George                                          | LA      | 44   | Quincy                  |
| Eppinger, Marie                                                | SS      | 13½  | Quincy                  |
| Epstein, Karl                                                  | Agr     |      | Bloomington             |
| Erickson, Edward B                                             | MSE     |      | Chicago                 |
| Ernest, Ruth                                                   | S       | 61½  | Urbana                  |
| Ernst, Carl Paul                                               | CE      | 46   | Chicago                 |
| Ernst, Elmore George                                           | A (SS)  | 48½  | Visalia, Cal.           |
| Erwin, Clinton Otis                                            | EE      | 27   | Macomb                  |
| Erwin, Elizabeth                                               | HSLAS   | 23   | Rockford                |
| Erwin, Walter Boynton                                          | BLA     | 65   | Chicago                 |
| Eschauzier, Louis                                              | SS      | 41½  | San Luis Potosi, Mexico |
| Eslick, Leo                                                    | ME      | 77   | Lead, S. D.             |
| Esselborn, William                                             | L sp    | 53   | Pearl City              |
| Essington, Arthur Vernon                                       | L       | 59   | Clifton                 |
| Estill, Alice Genevieve                                        | SS      |      | Clyde, Ohio             |
| Etienne, Leonard Arthur                                        | EE      | 36   | Centerville Station     |
| Etling, Walter P                                               | Agr     |      | Millstadt               |
| Ettinger, Charles McKinley                                     | CE      |      | Bourbon, Ind.           |
| Evans, Floyd Evan                                              | ME      |      | Hinckley                |
| Evans, James Miles                                             | L (SS)  |      | Chicago                 |
| Evans, Wallis Johnson                                          | ME      |      | Kenilworth              |
| Everham, William Edward                                        | ME      |      | Chicago                 |
| Everhart, Philip Hiram                                         | LA (SS) | 77   | Champaign               |
| Ewald, Paul George                                             | Agr     |      | Mt. Carmel              |
| Ewer, Warren Badger                                            | AE      | 6    | Chicago                 |
| Excell, Stuart William                                         | EE      |      | Chicago                 |
| Eyman, Margaret                                                | HSAgr   |      | Oak Park                |
| Eyman, Ralph Lee                                               | Agr     | 93   | Golden                  |
| Fackler, Orpheus A                                             | SS      | 16   | Alvordton, Ohio         |
| Fadden, Eva Leona                                              | HSAgr   | 20   | Morrison                |
| Fager, Daniel Baldwin                                          | LA (SS) | 108½ | Urbana                  |
| Fairbanks, Berthier Wesley                                     | Agr     | 33   | Chicago                 |
| Fairfield, Helen                                               | HSLAS   | 108  | Chicago                 |
| Falder, Gerald Hartley                                         | LA      |      | Macomb                  |
| Faletti, Michael Joseph                                        | LA      |      | Taft                    |
| Fallis, Myrlin Stern                                           | AE      | 112½ | Denver, Colo.           |
| Farah, Salim Raji                                              | Agr     |      | Palestine, Turkey       |
| Farley, Frank Webster                                          | Agr     |      | Jonesboro, Ark.         |
| Farlow, Samuel James                                           | AE      | 112½ | Augusta                 |
| Farmer, Orena                                                  | LA      | 70   | Belleville              |



|                                                       |                  |      |                      |
|-------------------------------------------------------|------------------|------|----------------------|
| Farnham, Albert Ayrton                                | <i>Agr</i>       | 36   | Westfield, Mass.     |
| Fasold, Miriam Rebecca                                | <i>LA</i>        | 35   | St. Louis, Mo.       |
| Fassett, Lloyd Allen                                  | <i>AE</i>        |      | Findlay, Ohio        |
| Fast, Clarence Mortimer                               | <i>EE</i>        | 32   | Tulsa, Okla.         |
| Faulk, Merrill Clifford                               | <i>LA</i>        |      | Urbana               |
| Faulkner, Fay Edward                                  | <i>S</i>         | 68   | Champaign            |
| Faulkner, Leslie William                              | <i>EE</i>        | 108  | Champaign            |
| Faurote, Guy Columbus                                 | <i>A</i>         | 71   | Niles, Mich.         |
| Fay, Donald Allen                                     | <i>BLA</i>       |      | Urbana               |
| Fedde, Ruth Catherine                                 | <i>HSLAS</i>     | 51   | Peotone              |
| Feddersen, Pearl Emily                                | <i>SS</i>        |      | South Chicago        |
| Federmann, Charles Russell                            | <i>A</i>         | 57   | Brookville, Ind.     |
| Fec, Josephine Irene                                  | <i>S</i>         |      | Champaign            |
| Fehrman, Florence                                     | <i>LA</i>        | 63   | Pekin                |
| Feldman, Jennie Gertrude                              | <i>LA</i>        |      | Chicago              |
| Feldman, Joseph Elmer                                 | <i>Agr</i>       | 48½  | Morrison             |
| Felger, Walter Blaine                                 | <i>ChE (SS)</i>  | 69½  | Cadle, Alberta, Can. |
| Feller, George Capron                                 | <i>CerE (SS)</i> | 35   | Kansas City, Mo.     |
| Feller, Laura                                         | <i>HSAgr</i>     |      | Kansas City, Mo.     |
| Fellows, Abbie Mabel                                  | <i>SS</i>        | 18   | Hebron               |
| Felter, Mary Emma                                     | <i>HSLAS</i>     | 136  | Eureka               |
| Felton, Harold Norton                                 | <i>EE</i>        |      | Mendota              |
| Ferguson, Clarence Milford                            | <i>Agr</i>       | 67   | Grand Forks, N. D.   |
| Ferguson, Florence Roxana                             | <i>HSLAS</i>     | 31   | Annawan              |
| Ferguson, Frank Cleveland                             | <i>LA</i>        | 33   | Annawan              |
| Ferguson, George Alonzo                               | <i>A</i>         |      | Washington, D. C.    |
| Ferguson, Howard Ritchey                              | <i>S</i>         |      | Champaign            |
| Ferguson, Jessie Lavinia                              | <i>SS</i>        |      | Chicago              |
| Fernandez, Carlos Salvador                            | <i>Agr (SS)</i>  | 64½  | Chehuahua, Mexico    |
| Ferrell, Cyrus Porter                                 | <i>EE</i>        | 36   | El Paso              |
| Ferrell, Kate                                         | <i>SS</i>        | 5    | Cartersville         |
| Ferrin, Dee Howard                                    | <i>Md</i>        |      | Cherokee, Iowa       |
| Fetherston, James Edward                              | <i>Md (SS)</i>   | 51   | Chicago              |
| Fetherston, John Moffat                               | <i>REE</i>       | 113  | Pullman              |
| Feutz, Frank Christian                                | <i>CE</i>        | 108  | Olney                |
| Field, Roswell Francis                                | <i>S</i>         | 75½  | Port Lavaca, Texas   |
| Fielder, William Fuller                               | <i>S</i>         | 116  | Chicago              |
| Fielding, Mabel                                       | <i>Mus</i>       | 34   | Urbana               |
| Fienhold, Harry John                                  | <i>Agr sp</i>    |      | Pontiac              |
| Fiero, Elmer Ellsworth                                | <i>LA (SS)</i>   | 103½ | New York City        |
| Fifield, Clarence Eugene                              | <i>BLA</i>       | 36   | Moline               |
| Finck, Chancy Lawarance                               | <i>L</i>         | 66   | Urbana               |
| Finley, Marion Reece                                  | <i>Agr</i>       |      | Hoopeston            |
| Finn, Edmund Matthews                                 | <i>AE</i>        | 29   | Lawrence, Mass.      |
| Finney, Stella Belle                                  | <i>LA (SS)</i>   | 84½  | Bismarck             |
| Firebaugh, Richard David                              | <i>S</i>         | 9    | Robinson             |
| Fischer, Henry Laurence, A.B.<br>(Wheaton Coll.) 1910 | <i>ME (SS)</i>   | 167  | Wheaton              |
| Fischer, Ralph                                        | <i>BLA</i>       |      | Freeport             |
| Fischer, Walter Rathfon                               | <i>Md</i>        | 31½  | Chicago              |
| Fish, Julian Lounsbury                                | <i>Agr</i>       | 55   | Chicago              |
| Fisher, Abigail Eliza                                 | <i>LA</i>        | 82   | Geneseo              |
| Fisher, Benjamin Sidney                               | <i>L</i>         | 70   | Anderson, Ind.       |
| Fisher, Clarence Rudolph                              | <i>Agr</i>       |      | Payson               |
| Fisher, Erwin                                         | <i>BLA</i>       | 37   | Chicago              |
| Fisher, Forrest Addison, B.S.,<br>1911                | <i>S</i>         | 137½ | Hudson, Kans.        |
| Fisher, Helen Vastine                                 | <i>LA</i>        | 31   | Geneseo              |
| Fisher, Lawrence Glen                                 | <i>LA</i>        |      | Orangeville          |
| Fisher, Ralph Warner                                  | <i>Md</i>        |      | Chicago              |
| Fisher, Ronald M                                      | <i>REE</i>       |      | Chicago              |
| Fisher, Walter Lloyd                                  | <i>RCE</i>       | 123  | Union City, Ind.     |
| Fishman, Alvin Texas                                  | <i>Agr</i>       | 38½  | Boskydell            |
| Fishman, Joe Carpenter                                | <i>BLA</i>       |      | Grand Rapids, Mich.  |
| Fisk, Fritz Harris                                    | <i>Agr</i>       |      | DeKalb               |
| Fisk, Roy Vincent                                     | <i>Agr</i>       | 29   | Prophetstown         |
| Fitch, Howard J                                       | <i>Agr</i>       |      | Rockford             |
| Fitch, Joseph Gibson                                  | <i>A</i>         |      | Madison, Wis.        |
| Fites, Harold B                                       | <i>Agr</i>       |      | South Bend, Ind.     |

## Undergraduate Students

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|                                                                        |                 |      |                        |
|------------------------------------------------------------------------|-----------------|------|------------------------|
| Fitzgerrell, Jack Allen                                                | <i>Agr</i>      |      | Ewing                  |
| Fitzgerrell, Sylvester Stanton                                         | <i>LA</i>       | 14½  | Benton                 |
| Fitzpatrick, James Claude                                              | <i>ME</i>       |      | Gillespie              |
| Flannery, Charles Abusdal                                              | <i>ME</i>       | 7    | Chicago                |
| Fleck, Arthur William                                                  | <i>A</i>        | 24   | Indianapolis, Ind.     |
| Fleming, Denna Frank                                                   | <i>SS</i>       | 7½   | Paris                  |
| Fleming, Sara Adelaide, A.B.<br>(Greenville Coll.) 1907; A.M.,<br>1912 | <i>SS</i>       |      | Danville               |
| Flemming, John Herman                                                  | <i>A</i>        |      | Davenport, Iowa        |
| Fletcher, Cassius Paul                                                 | <i>CE</i>       | 107  | Ridgefarm              |
| Fletcher, John Archibald                                               | <i>Agr</i>      | 109  | Chicago                |
| Fletcher, O Frank                                                      | <i>LA</i>       | 20   | Ridgefarm              |
| Fletemeyer, Frederick Rudolph                                          | <i>AE</i>       |      | LaFayette, Ind.        |
| Flickinger, Pauline Elizabeth                                          | <i>LA</i>       | 39   | Atwood                 |
| Flock, Ward John                                                       | <i>Agr</i>      |      | Sterling               |
| Flodin, Harold Leo                                                     | <i>ME</i>       | 75   | Chicago                |
| Fogg, Alden Knowlton                                                   | <i>CE</i>       | 75   | McConnell              |
| Fong, Gooley Yue                                                       | <i>EE (SS)</i>  | 96   | Canton, China          |
| Fong, Mon Charles                                                      | <i>CE</i>       | ½    | Canton, China          |
| Fontaine, Everett Orren                                                | <i>LA</i>       | 66   | Momence                |
| Ford, Hanby Lewis                                                      | <i>Md</i>       |      | Flat Rock              |
| Ford, Nellie Corey                                                     | <i>LA</i>       | 39   | Rockford               |
| Ford, Roscoe Aaron                                                     | <i>Md</i>       |      | Illioopolis            |
| Ford, Sally Louise                                                     | <i>LA</i>       |      | Chicago                |
| Forkey, Mildred Lillian                                                | <i>HS Agr</i>   | 31   | Prophetstown           |
| Fornof, William Ivan                                                   | <i>L sp</i>     |      | Streator               |
| Forty, Frank Alfred                                                    | <i>EE</i>       | 74   | Chicago                |
| Foskule, Grace Bertha                                                  | <i>S</i>        |      | Bloomington            |
| Foster, Baxter                                                         | <i>BLA</i>      |      | Chicago                |
| Foster, Dean Lester                                                    | <i>EE</i>       |      | Puxico, Mo.            |
| Foster, Donald DeVere                                                  | <i>BLA</i>      | 97   | Boswell, Ind.          |
| Foster, Edmond Roy                                                     | <i>AE</i>       | 112  | Melrose Park           |
| Foster, Frank Ward                                                     | <i>EE</i>       | 18   | Alexis                 |
| Foster, Ora French                                                     | <i>Agr</i>      | 108½ | Puxico, Mo.            |
| Foucht, Cecil Roy                                                      | <i>EE</i>       | 32   | Rutland                |
| Foulke, Claude Clifton                                                 | <i>BLA</i>      | 28   | Worthington, Ind.      |
| Fouts, Willard Hayes                                                   | <i>Md</i>       |      | Lewistown              |
| Fowler, Leland Stanford                                                | <i>S</i>        | 8    | Penfield               |
| Fowler, Wiley Marion                                                   | <i>LA</i>       | 71   | Penfield               |
| Fox, James Leslie                                                      | <i>MSE</i>      | 32   | Englewood, N. J.       |
| Fox, Ruth Leda                                                         | <i>LA</i>       |      | Upper Montclair, N. J. |
| Fragoso, Gilberto                                                      | <i>CE (SS)</i>  | 32½  | Durango, Mexico        |
| Frail, James Eddis                                                     | <i>SS</i>       | 18½  | LaFayette              |
| Frailey, Lester Eugene                                                 | <i>LA (SS)</i>  | 124  | Urbana                 |
| Francis, Helen Elizabeth                                               | <i>LA</i>       | 30   | Wyoming                |
| Frank, William Leonard                                                 | <i>Agr</i>      | 130  | Carthage               |
| Fraser, Mrs. Alice Eaton                                               | <i>Mus</i>      |      | Champaign              |
| Fraser, Reginald Simon                                                 | <i>CE</i>       | 29   | Lead, S. D.            |
| Fraser, Thomas                                                         | <i>CE</i>       |      | White Hall             |
| Frayner, Disk Sylvester                                                | <i>CE</i>       | 94   | Maywood                |
| Frazee, Anna Dora                                                      | <i>LA</i>       | 52   | Moweaqua               |
| Frazee, Russell Card                                                   | <i>Agr</i>      | 102½ | Morris                 |
| Frazer, George Carlyle                                                 | <i>Agr</i>      | 64½  | Lockport               |
| Frazey, Alice Belle, A.B., 1898                                        | <i>SS</i>       |      | Urbana                 |
| Frazier, Arthur Owen                                                   | <i>LA</i>       |      | Paris                  |
| Frazier, James B, Jr.                                                  | <i>Agr (SS)</i> | 99½  | Paris                  |
| Frazier, Philip                                                        | <i>BLA</i>      | 52   | Aurora                 |
| Frazier, Walter Stephen                                                | <i>AE</i>       |      | Aurora                 |
| Freark, Parke West                                                     | <i>MSE</i>      | 37   | Springfield            |
| Frederick, Eugene Mark                                                 | <i>Agr</i>      |      | Clarence               |
| Freels, John William                                                   | <i>L</i>        |      | East St. Louis         |
| Freeman, Kilburn Bartlett                                              | <i>A</i>        |      | Champaign              |
| Freer, Arthur Warren                                                   | <i>CE</i>       | 6    | Chicago                |
| French, Henry Helm                                                     | <i>RME (SS)</i> | 124½ | Chicago                |
| French, Ralph Waldo                                                    | <i>Agr (SS)</i> | 103  | Magnolia               |
| Freund, Gustav Louis                                                   | <i>ChE sp</i>   |      | New York City          |
| Freund, Leo                                                            | <i>LA</i>       |      | Decatur                |
| Fried, Harry Nathan                                                    | <i>Agr</i>      |      | Chicago                |



|                                                |         |      |                     |
|------------------------------------------------|---------|------|---------------------|
| Frier, John                                    | ME      | 32½  | St. Louis, Mo.      |
| Froehlich, Hugo Ferdinand                      | EE      | 69½  | St. Louis, Mo.      |
| Frohardt, Elmer Philip                         | Agr     |      | Granite City        |
| Fruland, Iva Viola                             | LA      | 31   | Sheridan            |
| Fruland, Ruth Myrtle                           | LA      |      | Sheridan            |
| Frye, Frederick William, B. S., 1907           | SS      | 162½ | Bloomington         |
| Frye, Hazel Mary                               | LA      |      | Fairbury            |
| de le Fuente, Jose Maria                       | Agr sp  |      | Nadadores, Mexico   |
| Fuller, Elizabeth Genevieve                    | LA      | 60   | Galva               |
| Fuller, Harold Coulon                          | A       | 70   | Indianapolis, Ind.  |
| Fuller, Orville Melvin                         | Agr     | 23½  | Beardstown          |
| Fuller, Purl                                   | AE      |      | Gundy Center, Iowa  |
| Fullerton, Theron Bushnell                     | Agr     | 67   | Ottawa              |
| Fulton, Guy Chandler                           | A       | 65   | Warsaw              |
| Fung, Yu Nan                                   | Agr     |      | Hunan, China        |
| Funk, Frank Wilmer                             | Agr     | 16½  | Beverly             |
| Funk, Ruth Scovell                             | HS Agr  |      | Champaign           |
| Funkhouser, Fern Susanna                       | LA      |      | Mattoon             |
| Furbeck, Stanley Brooks                        | S       | 36   | Oak Park            |
| Gable, George Elmore                           | A       | 115  | Cedar Rapids, Iowa  |
| Gabriel, Carson King                           | Md      |      | Payson              |
| Gaddis, Albert Macy                            | EE      | 111  | Modoc, Ind.         |
| Gaddis, Jessie Maria                           | Mus     | 52   | Champaign           |
| Gage, John Howard                              | S       | 30½  | Texico              |
| Gage, Lester Rufus                             | AE      | 25   | Winona, Minn.       |
| Gage, Robert Percy                             | Agr     | 106½ | Elgin               |
| Gallagher, Anna Marie                          | LA      | 99   | Chicago             |
| Gallaher, Harold                               | EE      | 27½  | Tiskilwa            |
| Galpin, Stella Belle, A.B. (Knox College) 1911 | Lb      | 33   | Galesburg           |
| Galvin, Paul Vincent                           | LA      |      | Harvard             |
| Gamble, Clare Curtiss                          | BLA     | 68   | Valleyfield, Canada |
| Gamble, Donald Tunnicliffe                     | Agr     | 106½ | Kewanee             |
| Ganser, Alice                                  | Mus     | 15   | Aurora              |
| Gants, Elwyn Tracy                             | ME      | 37   | Wenona              |
| Gantz, Howard Stanley                          | Agr     |      | Champaign           |
| Garber, Alfred Emanuel                         | Agr     |      | Gibson City         |
| Gardiner, John Low                             | LA (SS) | 68   | Chicago             |
| Gardner, Franc John                            | ChE     | 3    | Chicago             |
| Gardner, Harry, B.S. (Univ. of Wisconsin) 1905 | L       |      | Brodhead, Wis.      |
| Garrett, James Franklin                        | SS      | 135  | Kimmundy            |
| Garrison, Byron Keith                          | BLA     |      | Toulon              |
| Garten, William Raymond                        | S (SS)  | 88   | Odon, Ind.          |
| Garvey, Edward James                           | AE      |      | Faribault, Minn.    |
| Garvin, James Francis, Jr.                     | Agr     |      | Santiago, Chile     |
| Garza, Roman de la                             | CE      |      | Nuevo, Mexico       |
| Gaskill, Della Alice                           | HSLAS   | 99   | Joliet              |
| Gassmann, Zean G                               | BLA     |      | Olney               |
| Gately, Frederick Wortman                      | SS      | 20   | Chicago             |
| Gatlin, Mae                                    | BLA     |      | Waukegan            |
| Gauger, Joseph Frederick                       | Agr     | 32   | Champaign           |
| Gauger, Raymond Wallace                        | LA      | 24   | Champaign           |
| Gauger, Marguerite Elston, A.B., 1913          | SS      | 135½ | Champaign           |
| Gault, Frank Wallace                           | Agr sp  |      | Urbana              |
| Gaunt, Gail                                    | LA      |      | Mound City          |
| Gaunt, Grace                                   | Mus     | 10   | Mound City          |
| Gaut, Rosa-Lee, B.Mus., 1912                   | LA      | 141  | Knoxville, Tenn.    |
| Gay, Ernest Hubbard                            | S       |      | Quincy              |
| Gay, Grace Amelia                              | LA      |      | Quincy              |
| Gayle, Robert Edwin                            | Agr sp  | 27½  | Lincoln             |
| Gee, Claude Earl                               | EE      | 108½ | Lawrence, Kans.     |
| Gehant, Evelyn Ella                            | HS Agr  | 32   | Dixon               |
| Gehant, George Modiste                         | Agr     |      | Dixon               |
| Gehant, Rosalie Florence                       | HS Agr  | 31   | Dixon               |
| Geherty, Celeste                               | LA      | 29   | Winnetka            |
| Gehrig, Edward Franklin                        | ME      | 64   | Grantfork           |

|                                                          |         |     |                       |
|----------------------------------------------------------|---------|-----|-----------------------|
| Gehrig, Ida Lou                                          | SS      |     | Pekin                 |
| Geiger, Charles Francis                                  | CerE    | 2   | Chicago               |
| Geiler, Frank Herman                                     | Agr     |     | Mansfield             |
| Geisendorfer, Karl Edward                                | Agr     | 14  | Pittsfield            |
| Gemberling, Cameron Houtz                                | RCE     | 56  | South Bend, Ind.      |
| George, Leslie Godfrey                                   | LA (SS) | 70½ | Staunton              |
| Gere, Helen Beatrice                                     | HSLAS   | 98  | Urbana                |
| Gernand, Oliver Perry                                    | Agr     |     | Rossville             |
| Gerten, Nicholas                                         | CE      |     | Chicago               |
| Geselbracht, Howard Cyril                                | Agr     |     | Chicago               |
| Getman, Roy Lyle                                         | CE      | 122 | Harvard               |
| Gettys, Ruth Hortense                                    | LA      |     | Chicago               |
| Geyer, Grace Mildred                                     | LA      | 33  | Roswell, N. Mex.      |
| Gibson, Charles Rannells                                 | Agr     |     | Hanover Center, Mass. |
| Gibson, Mable Helen                                      | HSAgr   | 80  | Woodstock             |
| Gibson, Sylvia Rose                                      | LA      |     | Chicago               |
| Giddings, Mate Lewis                                     | HSLAS   |     | Danville              |
| Gideon, Charles Russell                                  | LA      |     | Oklahoma City, Okla.  |
| Giehler, Frederick John                                  | AE      | 118 | Ottawa                |
| Giertz, Arthur Edward                                    | CE      |     | Elgin                 |
| Giesler, James Raymond                                   | BLA     |     | Muscatine, Iowa       |
| Gifford, Ralph Egley                                     | BLA     |     | Onarga                |
| Gift, Lyle Henry                                         | Agr     | 4   | Peoria                |
| Gilbert, Arthur Abbott                                   | EE      |     | Pana                  |
| Gilbert, James Harman                                    | L       |     | Mt. Vernon            |
| Gilbert, Minnie Ellen                                    | LA      | 27½ | Dillon, Mont.         |
| Gildersleeve, Mary Elsie                                 | HSLAS   | 97½ | Hudson                |
| Gilkey, John Ray                                         | Agr     | 39½ | Hume                  |
| Gill, George Thallon                                     | Agr     | 94  | Evanston              |
| Gillam, Winona Mayble                                    | Agr sp  | 16  | Chicago               |
| Gillespie, Evangeline Jeanette                           | S       | 49½ | Harris                |
| Gillham, Willard Clark                                   | ME      |     | Edwardsville          |
| Gilmore, Leonard Mason                                   | Agr     | 58½ | Moline                |
| Gilpatrick, Gladys                                       | HSAgr   | 22  | Plano                 |
| Givens, Harry                                            | SS      | 7½  | Paris                 |
| Glassco, Roy Thomas                                      | Agr     | 59  | Charleston            |
| Glassco, Ruth Marie                                      | HSAgr   |     | Charleston            |
| Glenn, Edgar Wilson                                      | CE (SS) | 23  | Holton, Kans.         |
| Glenn, Edna                                              | SS      | 12  | Mt. Vernon            |
| Glenn, Murray Otto                                       | S (SS)  | 27½ | Magnolia              |
| Glessing, Barbara Frances                                | LA      |     | El Paso               |
| Glick, Everett E                                         | Agr     | 61½ | Rochester, Ind.       |
| Glover, Clarence Washburn                                | LA      |     | Ottawa                |
| Glover, Donald Mitchell                                  | Md      | 35  | Urbana                |
| Glover, Leonard Wood, A.B.,<br>1912                      | Mus     | 194 | Urbana                |
| Glover, Rodney Champlin                                  | L       | 28  | Ottawa                |
| Glover, Walter Earl                                      | A       | 77½ | Topeka, Kans.         |
| Glueck, Alexander Frederick                              | MnE     |     | Roswell, N. Mex.      |
| Godehn, Reuel Ariel                                      | AE      | 37  | Moline                |
| Godfrey, Eleanor                                         | LA (SS) | 96½ | Urbana                |
| Goebel, Irma Gretchen                                    | LA      | 83  | Urbana                |
| Goebel, Julius Ludwig, Jr.,<br>A.B., 1912, A.M., 1913    | L       |     | Urbana                |
| Goelitz, William Henry                                   | BLA     | 46  | Oak Park              |
| Goetz, Antoinette Helen, A.B.<br>(Iowa State Univ.) 1906 | Lb      | 42  | Iowa City, Iowa       |
| Goff, Arthur Clark                                       | Md      | 31½ | Staunton              |
| Goff, Roy Allen                                          | Agr     |     | Galesburg             |
| Gogerty, Henry L                                         | AE      | 58  | Zearing, Iowa         |
| Goldberg, Charlotte Deana                                | LA      |     | Chicago               |
| Goldberg, Philip Hilton                                  | LA (SS) |     | Chicago               |
| Goldberger, Harold Julius                                | S       | 21  | Chicago               |
| Goldberger, Henry Joseph                                 | CE      |     | Chicago               |
| Golden, Waldo Emerson                                    | Md      | 68  | Champaign             |
| Golden, Wesley Barton                                    | BLA     | 68  | Champaign             |
| Goldman, Ellis Ralph                                     | CE      | 92½ | Rockford              |
| Goldman, Frank                                           | A       |     | St. Louis, Mo.        |
| Goldman, Rae                                             | SS      | 130 | Terre Haute, Ind.     |



|                                              |         |      |                     |
|----------------------------------------------|---------|------|---------------------|
| Goldschmidt, Erna Claire                     | HSLAS   |      | Davenport, Iowa     |
| Goldsmith, Frank French                      | Agr     |      | Wataga              |
| Gomez, Frzapalo Ramiro                       | Agr sp  |      | Guadalajara, Mexico |
| Gonsior, Albert                              | CE      | 111½ | Chicago             |
| Gonsior, Stella                              | LA      |      | Chicago             |
| Gooch, Gretchen Louise                       | LA      | 33   | Bellflower          |
| Good, Glenn Samuel                           | Agr sp  |      | Kewanee             |
| Good, Iren Arabella, B.S. (Coe College) 1913 | Lb      |      | Kenwood Park        |
| Goodmann, Leola Ione                         | HSLAS   | 97   | Champaign           |
| Goodwin, Viola                               | LA      | 10   | Hot Springs, Ark.   |
| Goodwine, Mary Elizabeth                     | Agr sp  |      | Potomac             |
| Gordon, James Allen                          | S       |      | St. Joseph, Mo.     |
| Gordon, Mark Dee                             | SS      |      | Winchester          |
| Gore, George Townsend                        | Agr     |      | Morris              |
| Gorey, George Francis                        | ME      |      | Joliet              |
| Gorges, Franz                                | CE      | 39   | Chicago             |
| Gormley, Lewis Vincent                       | Agr     | 11½  | Austin              |
| Gossett, Vera Ople                           | S       | 60   | Casey               |
| Goudy, Don Coleman                           | ME      |      | Fairfield           |
| Gould, Anthony Ready                         | Agr     |      | Urbana              |
| Gould, John, Jr.                             | Agr     | 105½ | Chicago             |
| Gould, Maurice Augustus                      | EE      |      | New Sharon, Iowa    |
| Gouwens, Estey William                       | BLA     |      | South Holland       |
| Gowdy, Max                                   | Agr sp  | 21½  | Bloomington         |
| Grabbe, John Christian                       | Agr     | 34   | Urbana              |
| Grable, Thomas Arthur                        | L sp    |      | Raleigh             |
| Grant, Clarence Todd                         | EE      | 37   | Elgin               |
| Grant, Helen Winifrede                       | LA      | 101  | Urbana              |
| Grant, Ruth Margaret                         | HSLAS   | 29   | Urbana              |
| Grantham, George Manners                     | Agr     | 116½ | New Richmond, Ind.  |
| Grantz, Raymond Lorimer                      | LA      |      | Rockford            |
| Graven, Anker Suerre                         | AE      | 11½  | Menomonie, Wis.     |
| Graves, Frank Loren                          | A       |      | Crookston, Minn.    |
| Graves, Frank Wilkinson                      | Agr     |      | Silver Creek, N. Y. |
| Graves, Nellie Ruth                          | HSLAS   |      | Decatur             |
| Graves, Perry Henry                          | BLA     | 52   | Rockford            |
| Graves, Roy Martin                           | L       |      | Evanston            |
| Gray, John Ernest                            | MnE     | 28   | Ottawa              |
| Gray, Leslie Roy                             | EE      |      | Odell               |
| Gray, Ralph Edward                           | Cer     |      | Arcola              |
| Gray, Ruth                                   | HSLAS   | 29   | Des Moines, Iowa    |
| Grayhack, John Edward, Jr.                   | CE      | 36   | Joliet              |
| Green, Alta                                  | LA      | 66   | Urbana              |
| Green, Bertha Agnes                          | Mus     | 127  | Ivesdale            |
| Green, Eulalie                               | HSLAS   | 63   | Oakwood             |
| Green, Gladys                                | HSLAS   |      | Oakwood             |
| Green, John Neville                          | LA      |      | St. Louis, Mo.      |
| Green, Ralph                                 | CE      | 75   | Chicago             |
| Green, Robert Raymond, Jr.                   | Agr     |      | Toulon              |
| Greenburg, Roland Everett                    | ME      | 91   | New Richmond, Ind.  |
| Greene, Arthur Ritchie                       | Agr     | 109  | Lisle               |
| Greene, Joseph Nathaniel                     | Agr     | 68   | Chicago             |
| Greengard, Louis Jacob                       | Agr     | 32   | Chicago             |
| Greenman, Phillip Ray                        | ME      | 71   | Pond Creek, Okla.   |
| Greenspahn, Irving                           | BLA     |      | Chicago             |
| Greenwell, Earl Eugene                       | Ch      |      | Harvey              |
| Gregg, Marion Elsie                          | HSLAS   |      | Chicago             |
| Gregory, Joseph VanClief                     | ME      | 31   | Kansas City, Mo.    |
| Gregory, Porter Tate                         | EE (SS) | 92   | Fulton, Ky.         |
| Gresham, Nina Vivien, A.B., 1910, A.M., 1911 | SS      | 138  | Champaign           |
| Greison, Hans Peter                          | BLA     | 20   | Savanna             |
| Gridley, William Whiting                     | BLA     | 27   | Amboy               |
| Griesbaum, Erwin                             | ME      | 101½ | New Baden           |
| Grieser, Grandison Lloyd                     | S       |      | Quincy              |
| Grieser, Leroy Oliver                        | Agr     | 26½  | Quincy              |
| Griffin, Jack Mitchell                       | Agr     | 61½  | Evanston            |
| Griffin, William Leroy                       | BLA     | 106  | Atkinson            |

|                                          |                  |      |                         |
|------------------------------------------|------------------|------|-------------------------|
| Griffith, Burdette                       | <i>Agr</i>       |      | McNabb                  |
| Griffith, Clarence Patrick               | <i>AE</i>        | 108  | Urbana                  |
| Griffith, Dickerson Francis              | <i>Agr</i>       | 34   | Chicago                 |
| Griftner, James Howard                   | <i>MnE</i>       | 85   | Champaign               |
| Grigg, Dan Ralph, Jr.                    | <i>L</i>         | 49   | Greenville              |
| Grignon, Gaston Wilfred                  | <i>LA</i>        | 19   | Menominee, Mich.        |
| Grigsby, Hugh                            | <i>Agr</i>       | 30   | Medina, Mexico          |
| Grimes, William Henry                    | <i>Agr sp</i>    |      | Union City, Ind.        |
| Griswold, George Durfee                  | <i>ME</i>        | 73   | Chicago                 |
| Gronlun, Hubert Kenyon                   | <i>CerE</i>      |      | Elgin                   |
| Gross, Charles Raymund                   | <i>BLA</i>       |      | Chicago                 |
| Gross, Christian                         | <i>Agr</i>       |      | Chicago                 |
| Gross, Meda Floy                         | <i>SS</i>        | 85½  | Monticello              |
| Grossberg, Victor Hubert                 | <i>LA</i>        |      | Chicago                 |
| Grossman, Donald Ashway                  | <i>L</i>         |      | Champaign               |
| Grossman, Ralph Emery                    | <i>AE</i>        | 49   | Champaign               |
| Grover, Donald Dana                      | <i>A</i>         |      | Rockford                |
| Groves, Pauline Trabue, A.B.,<br>1911    | <i>HSLA (SS)</i> | 145  | Champaign               |
| Gruhl, Clarence James                    | <i>AE</i>        |      | Milwaukee, Wis.         |
| Grunewald, Augustus Henry, Jr.           | <i>Agr</i>       | 73½  | Chicago                 |
| Grunewald, Herman C                      | <i>CE</i>        | 53½  | St. Louis, Mo.          |
| Guffin, Lillian Irene                    | <i>LA</i>        | 57   | Champaign               |
| Gulley, Sanford Joseph                   | <i>SS</i>        | 3    | Urbana                  |
| Gum, Harry Allen                         | <i>ME</i>        | 45   | Marseilles              |
| Gumm, Leslie Monroe                      | <i>EE</i>        | 36   | Marseilles              |
| Gunkel, Woodward William                 | <i>BLA</i>       | 27   | Sheffield               |
| Gunnell, Palmer McKenzie                 | <i>L</i>         | 25   | Wichita, Kans.          |
| Gunther, Felix Arno                      | <i>EE</i>        | 2    | Quincy                  |
| Gurley, Leon Raymond                     | <i>ME</i>        | 55½  | Chicago                 |
| Gurley, Sumner Haseltine                 | <i>SS</i>        | 6½   | Springfield, Mo.        |
| Gustafson, Axel Ferdinand, B.S.,<br>1907 | <i>S</i>         | 165  | Aledo                   |
| Gustafson, Carl Albert                   | <i>AE</i>        |      | West Fort Dodge, Iowa   |
| Gustafson, George Philip                 | <i>BLA</i>       | 32   | Sycamore                |
| Gutell, Earl George                      | <i>LA</i>        |      | Odell                   |
| Guynn, Jesse Frederick                   | <i>Agr</i>       |      | Dewey                   |
| Gwinn, Avis                              | <i>HSLAS</i>     | 103  | Oakland                 |
| Gwinn, Edith                             | <i>HSLAS</i>     | 73½  | Urbana                  |
| Haag, Vernon William                     | <i>Ch</i>        | 67   | Mazon                   |
| Haan, George William                     | <i>Md</i>        | 54   | Aurora                  |
| Habbe, Richard Hartloff                  | <i>LA</i>        | 103  | Indianapolis, Ind.      |
| Hachman, Logan F                         | <i>Agr (SS)</i>  | 4    | Evansville              |
| Hacker, Amanda Dimple                    | <i>LA</i>        | 31   | Cairo                   |
| Hackley, Elizabeth Pursel                | <i>LA</i>        |      | Urbana                  |
| Hadden, Chester Gilbert                  | <i>Agr</i>       | 33   | Chicago                 |
| Hadden, Stanley Bear                     | <i>ME</i>        | 112  | Penfield                |
| Hagan, Thomas Angus                      | <i>Agr</i>       | 34   | Champaign               |
| Hagener, Arthur                          | <i>CE</i>        | 75   | Beardstown              |
| Hager, Henry Merritt                     | <i>BLA</i>       |      | Dwight                  |
| Haggott, William Stiles                  | <i>EE</i>        | 74   | Keokuk, Iowa            |
| Hagstrom, George Arthur                  | <i>ME</i>        |      | Berwyn                  |
| Hahn, Fred Charles                       | <i>ChE</i>       | 31   | Springfield             |
| Haines, Forrest Livingston               | <i>BLA</i>       | 54   | Urbana                  |
| Haish, Theodore Adam                     | <i>EE</i>        |      | Hinckley                |
| Hakanson, Arthur Ferdinand               | <i>ChE</i>       | 75   | Chicago                 |
| Halas, Walter Henry                      | <i>AE</i>        | 67   | Chicago                 |
| Halbruge, Charles Morgan                 | <i>BLA</i>       | 29   | Rockport, Ind.          |
| Hall, Berniece                           | <i>LA</i>        |      | Indianapolis, Ind.      |
| Hall, Charles Myron                      | <i>CE</i>        |      | Burlington, Iowa        |
| Hall, Emory George                       | <i>BLA</i>       |      | Rockford                |
| Hall, George Ross                        | <i>LA</i>        |      | Oak Park                |
| Hall, Helen Evalyn                       | <i>HSAgr</i>     |      | Attica, Ind.            |
| Hall, Howard Gage                        | <i>Agr sp</i>    |      | Chicago                 |
| Hall, Lisle Gwynne                       | <i>Agr</i>       | 103  | Riddle, Oregon          |
| Hall, Russell Pritchett                  | <i>Agr</i>       | 109  | Niantic                 |
| Hall, Thomas Dennison                    | <i>Agr</i>       | 120  | Ladybrand, South Africa |
| Halliday, Ruth                           | <i>LA (SS)</i>   | 100½ | Clio, Mich.             |



|                                       |            |      |                       |
|---------------------------------------|------------|------|-----------------------|
| Halliwell, Pauline                    | LA         | 46   | Chicago               |
| Hall-Quest, Mrs. Shirley Knox         | LA         |      | Urbana                |
| Halstrom, Bernhard Christian          | A          |      | Chicago               |
| Halterman, Henry James                | ME         | 100  | Mounds                |
| Halton, Horace Marie                  | LA         | 39   | Brooklyn, Ind.        |
| Halushka, Gertrude                    | LA         | 69   | Chicago               |
| Halverson, Stener Benjamin            | BLA        |      | Stoughton, Wis.       |
| Hamann, Christian                     | CE         |      | Lockport              |
| Hamill, Eugene Carl                   | AE         | 61   | Bloomington           |
| Hamilton, Chauncey Geyer              | BLA        |      | Colfax                |
| Hamilton, Donald Alan                 | A          |      | Spokane, Wash.        |
| Hamilton, Don Herman                  | Agr        |      | Paris                 |
| Hamilton, Ruben James                 | SS         | 13½  | Atlanta, Mo.          |
| Hamilton, Tom Sherman                 | Ch         |      | Paris                 |
| Hammer, Glenn Orville                 | EE         | 66   | Morrison              |
| Hammett, Harry Rice                   | ME         |      | Redlands, Cal.        |
| Hammitt, Andrew Baker                 | AE         | 76   | Des Moines, Iowa      |
| Hancock, Myron Scott                  | ME         |      | Beecher City          |
| Handke, Paul Albert                   | Cer        | 119½ | Evanston              |
| Handlin, William Clyde, A.B.,<br>1909 | SS         | 132  | Lake Fork             |
| Hanes, Ernest Floyd                   | LA (SS)    | 103  | Mt. Morris            |
| Hanes, Helen Leigh                    | S          | 102  | Springfield           |
| Hanford, Charles Harry                | BLA (SS)   | 25   | Geneseo               |
| Hanford, Mildred Maria                | HSAgr      | 58   | Oak Park              |
| Hanger, Paul Newton                   | Agr        |      | Urbana                |
| Hankins, Orville Gerber               | Agr        | 123½ | Champaign             |
| Hanley, Cope Judson                   | L (SS)     |      | Rensselaer, Ind.      |
| Hanley, Charles Wallace               | ChE        |      | Kansas City, Mo.      |
| Hanmore, John Leon                    | L          |      | Urbana                |
| Hannah, Harry Ingalls, A.B.,<br>1913  | L          | 32   | Urbana                |
| Hansen, Mabel Laurine                 | HSAgr      | 99   | Jackson, Minn.        |
| Hansen, Oscar Bernard                 | Agr        |      | Momence               |
| Hansen, Roy                           | Agr        | 115  | Rock Island           |
| Hansen, Stanley                       | ME         | 39   | Chicago               |
| Hansen, Wilbur Martin                 | Agr sp     | 25½  | Chicago               |
| Hansman, Herbert Carl                 | BLA        |      | Ft. Madison, Iowa     |
| Hanson, Mrs. Harriet Roman            | LA         |      | Washington, D. C.     |
| Hanson, Roy Walfred                   | AE         | 108  | Oakland, Nebr.        |
| Hao, Tso Chang                        | LA         |      | Yangtsun, China       |
| Harbarger, Lelia Merle                | Agr        |      | Columbus, Ohio        |
| Hardesty, Bonnie Jean                 | LA         |      | Homer                 |
| Hardiman, Leo Bernard                 | AE         |      | Los Angeles, Cal.     |
| Harding, Albert Austin                | Mus (SS)   | 107  | Champaign             |
| Hare, Fay Charles, A.B., 1913         | SS         | 130  | Gilman                |
| Harman, Harris Jacob                  | CE (SS)    | 102  | Peoria                |
| Harms, George William                 | RME        | 63½  | Peoria                |
| Harn, Jerry Anson                     | AE         |      | Lewiston              |
| Harp, John Wesley                     | SS         |      | Hillsboro             |
| Harper, Bertha May, A.B., 1907        | SS         | 132  | Urbana                |
| Harper, Edward Clarke                 | A          | 116  | Enderlin, N. D.       |
| Harris, Alice Irene                   | LA         |      | Elgin                 |
| Harris, A Ross                        | EE         |      | Vinita, Okla.         |
| Harris, Clyde Dunbar                  | SS         | 24   | Dongola               |
| Harris, Elizabeth Payne               | LA         |      | Champaign             |
| Harris, Elodia Phern                  | HSLAS (SS) | 38   | Marion                |
| Harris, Hannah Hahn                   | LA         | 9    | Champaign             |
| Harris, Hannah Jewell                 | LA         | 89   | Elgin                 |
| Harris, Herbert Henry                 | Agr        | 66   | Madison               |
| Harris, Leo Gabriel                   | BLA        | 30   | Wilton Junction, Iowa |
| Harris, Lois Myrtle                   | S          | 75   | Sheldon               |
| Harris, Mandel H                      | A          | 67   | Chicago               |
| Harris, Margaret Ray                  | LA         | 99   | Champaign             |
| Harris, William                       | SS         | 121½ | Moweaqua              |
| Harrison, Bernice, A.B., 1912         | SS         | 133  | Champaign             |
| Harrison, Ruth Marie                  | Mus sp     |      | Columbia City, Ind.   |
| Harrod, Byrd Henry                    | AE         |      | Ft. Wayne, Ind.       |
| Harsch, Eugene Milton                 | Agr        | 62   | Peoria                |

|                                               |                |     |                    |
|-----------------------------------------------|----------------|-----|--------------------|
| Harsh, Harry John                             | LA             | 29  | Sullivan           |
| Harshbarger, Everett Leonard                  | Agr            |     | Ladoga, Ind.       |
| Hart, Archie Harrison                         | Agr            | 30  | Grand Chain        |
| Hart, Paul Mathew                             | EE             | 108 | Clinton            |
| Hart, Richard Nelson                          | Agr            | 22  | Brighton           |
| Hart, William Ward                            | L              |     | Benton             |
| Hartford, Naoma                               | LA             |     | Champaign          |
| Harting, Mildred Ellen                        | LA             | 75  | Alexandria, Ind.   |
| Hartman, George Howard                        | EE             | 36  | Atkinson           |
| Hartman, Laura Ellen                          | LA             | 45  | Milford            |
| Hartman, Milton Miles                         | Agr sp         |     | Freeburg           |
| Hartsock, Nellie Mae                          | HSLAS          | 118 | Clinton            |
| Harvey, Ralph Frame                           | Agr            | 31½ | Indianapolis, Ind. |
| Harwood, Frank David                          | SS             | 30  | Flora              |
| Harwood, Sylvan Dix                           | BLA            | 34  | Carrollton         |
| Harz, Albert William                          | Agr            |     | Palatine           |
| Haskell, James Porter                         | BLA            | 36½ | Sterling           |
| Hasker, Edwin Laurie                          | BLA            | 104 | Kankakee           |
| Haskett, Clarence Raymond                     | BLA            | 30½ | Oklahoma, Okla.    |
| Haslund, Roy Harrison                         | A              | 108 | Minneapolis, Minn. |
| Hatch, Alice Ruth                             | HSLAS          | 119 | Richmond           |
| Hathorne, Marjorie                            | HSLAS          |     | Waukegan           |
| Hatowski, Elijah Robert                       | EE             | 108 | Oak Park           |
| Hatten, Silas William                         | Agr sp         |     | Delavan            |
| Hattenhauer, Robert Clinton                   | ME             | 36  | Peru               |
| Hauber, Carl                                  | A              | 62  | Springfield, Mo.   |
| Hawes, Henry Clifford                         | BLA            | 30  | Atlanta            |
| Hawkins, Emin Witherspoon                     | Agr sp         | 34  | Fairmount          |
| Hawkins, James Sumner                         | BLA            | 5   | Marion, Ind.       |
| Hawkinson, Carl Otto                          | AE             |     | Marquette, Kans.   |
| Hawley, Alfred DeWitt                         | S              | 99½ | Pittsford, N. Y.   |
| Hayden, Halbert Wernestock                    | ME             | 9   | Lewisport, Ky.     |
| Hayes, Earle Melville                         | Agr            |     | Kings              |
| Hayes, Edward Bean                            | SS             | 9   | Urbana             |
| Hayhurst, Paul, A.B. (Univ. of Missouri) 1904 | Agr (SS)       | 229 | Urbana             |
| Hazen, Franklin Mellen                        | CerE (SS)      | 24  | LaSalle            |
| Headley, Francis Leo                          | Agr            | 33  | Paris              |
| Healy, Fred Albert                            | Agr            | 72  | Aurora             |
| Healy, Verne                                  | Agr            |     | Clarence           |
| Healy, Wellington Carleton                    | L              | 6   | Rochelle           |
| Heath, Dwight Frederick                       | S              | 32  | Chicago            |
| Heath, Edith Mary                             | LA             | 67  | Amboy              |
| Heath, Monroe                                 | LA             | 14½ | Chicago            |
| Heath, Trevor Morse                           | Agr            | 72  | Toledo, Ohio       |
| Hecht, August George                          | Agr            | 92½ | Wellston, Mo.      |
| Heckler, Leo Chripostem                       | EE             |     | Harvey             |
| Hedcock, John Franklin                        | Agr            | 79  | Plymouth           |
| Hedcock, John Harrison                        | Agr            | 31  | Plymouth           |
| Hedgemon, Ioda Aileen                         | SS             |     | St. Louis, Mo.     |
| Hedges, Mrs. Pearle C                         | SS             |     | Nashville, Tenn.   |
| Hedquist, Esther Cedelia                      | SS             |     | Princeton          |
| Hedrick, Edna May                             | LA             | 60  | Urbana             |
| Hedrick, George Samuel                        | Agr            | 34  | Urbana             |
| Heeschen, Richard George                      | ChE            |     | Davenport, Iowa    |
| Hegener, Archie Leo                           | BLA            |     | Bluff Springs      |
| Hegner, John Robert                           | EE             |     | Stuttgart, Ark.    |
| Heidkamp, Emil Nicholas                       | CE             | 135 | Chicago            |
| Hein, Mary Rachel                             | HS Agr sp (SS) | 23½ | Champaign          |
| Hein, Mason August                            | Agr            |     | Champaign          |
| Heindel, John Harold                          | AE             | 35  | Elgin              |
| Heindel, Spencer Rehbock                      | CE             |     | Stockton           |
| Heineke, Paul Henry                           | LA             |     | Streator           |
| Heinzelmann, Alfred Martin                    | ChE (SS)       | 75  | Aurora             |
| Heiple, Donald Graff                          | BLA            | 26  | Washington         |
| Helander, Linn                                | ME             | 101 | Chicago            |
| Held, Rhea Lucile                             | HS Agr         |     | Tuscola            |
| Helfrich, Otis Loyd                           | Cer            | 114 | Carthage           |
| Helgeland, Lillie Isabel                      | SS             | 43  | Elliott            |



|                                                                |          |      |                     |
|----------------------------------------------------------------|----------|------|---------------------|
| Helm, Herbert Clarence                                         | LA       | 43   | Metropolis          |
| Helper, Kenneth Louis                                          | Agr      |      | Henry               |
| Hemphill, Chester Abram                                        | Agr      | 89   | Jacksonville        |
| Hemphill, James Wolfe                                          | LA       |      | Danville            |
| Henderson, Alexander Swift                                     | MSE (SS) | 67   | Chicago             |
| Henderson, Frank Spoor                                         | EE       | 66½  | Sterling, Colo.     |
| Henderson, Fred                                                | Agr      | 106½ | Millers Ferry, Ala. |
| Henderson, Irene Marie                                         | SS       |      | Ottawa, Kans.       |
| Henderson, James Bruce                                         | Agr      | 90   | Millers Ferry, Ala. |
| Henline, Henry Harrison                                        | EE       | 108  | Colfax              |
| Henn, Hildegard Anna Sarah                                     | HSAgr    |      | Toluca              |
| Henning, Ednah Ellen                                           | LA       |      | Sheffield           |
| Henry, Mary Anna                                               | LA       | 59   | Paloma              |
| Hensold, Harold Hartman                                        | Agr      |      | Tonica              |
| Henson, Ray David                                              | L        |      | Johnston City       |
| Hepburn, Thomas McDonald                                       | CE       | 128  | Genoa               |
| Herdman, Carrie Belle                                          | S        | 99   | Winnetka            |
| Herdman, Margaret May, A.B., 1910                              | Lb       | 40   | Winnetka            |
| Herget, Ernest Louis                                           | BLA      | 34   | Pekin               |
| Hermann, Ralph Leroy                                           | EE       | 74   | Woodbine            |
| Hermanson, Frank Alfred                                        | BLA      | 31   | Milford             |
| Hershey, Charlie Brown                                         | LA       | 106  | Piqua, Ohio         |
| Hess, Gladys Fox                                               | HSLAS    |      | Seattle, Wash.      |
| Hess, Oral Vera                                                | HSLAS    | 2    | Sidney              |
| Hesselbaum, Caroline Elizabeth                                 | SS       | 130  | Aurora              |
| Hester, Edna Adell                                             | Lb       | 26   | Fayetteville, Ark.  |
| Hester, Elizabeth                                              | SS       |      | Delaware, Ohio      |
| Heun, Arthur Dickey                                            | ME       |      | Chicago             |
| Heuse, Edward Otto, B.S. (Han-<br>over Coll.) 1900, M.S., 1907 | SS       |      | Madison, Ind.       |
| Hewes, Mary Edith                                              | SS       |      | LaSalle             |
| Hewins, Melvin Edwin                                           | SS       | 29   | Loda                |
| Hickle, Glen Cassius                                           | SS       | 7    | Vermont             |
| Hickman, James Burr                                            | BLA      | 63   | Ashville, N. C.     |
| Hiebel, Leonard B                                              | Agr      | 36   | Waterloo, Wis.      |
| Higgins, Irma May                                              | HSLAS    | 27   | Urbana              |
| Higgins, Mary Marguerite                                       | HSAgr    |      | Joliet              |
| Higgins, Max Brown                                             | AE       | 117  | Joliet              |
| Hightower, Clark Matthews                                      | SS       | 6½   | Watson              |
| Hilbert, John William                                          | CE       | 36   | Chicago             |
| Hill, Charles Francis                                          | S        | 104  | Toledo              |
| Hill, Chauncey Steavens                                        | Agr      | 105  | Champaign           |
| Hill, Fanny Wilder, A.B., 1910                                 | Lb       | 16   | Champaign           |
| Hill, Fred James                                               | Cer      | 69   | Harvard             |
| Hill, Henry Ayers                                              | LA       |      | Champaign           |
| Hill, James Edward                                             | Agr      | 60   | Mattoon             |
| Hill, John Cantwell                                            | Agr      | 48   | Coyoacan, Mexico    |
| Hill, John William                                             | CE       | 106  | Chicago             |
| Hill, Loren Clifford                                           | SS       | 9    | Mt. Carmel          |
| Hill, Lucy Belle                                               | Mus (SS) | 7    | Urbana              |
| Hill, Robert Earl                                              | LA       | 25   | Springfield         |
| Hill, Roger Edward                                             | ME       | 21½  | Woodstock           |
| Hill, Rollin Cyril                                             | CerE     |      | Kalamazoo, Mich.    |
| Hill, Warren Elliott                                           | Agr      | 30   | East St. Louis      |
| Hill, Wilma Marie                                              | LA       | 106  | Dayton, Ind.        |
| Hillman, Arthur Burgess                                        | CE       | 100  | Chicago             |
| Hills, David Avery                                             | EE       | 4    | Evanston            |
| Hills, Louis John                                              | MSE (SS) | 72   | Joliet              |
| Hills, Thirza Louise                                           | HSAgr    |      | Mattoon             |
| Hilpert, Martha                                                | HSAgr    |      | St. Louis, Mo.      |
| Himmelreicher, Walter August                                   | CE       |      | Chicago             |
| Himstedt, Ralph Ebner                                          | LA       | 26   | Boody               |
| Hines, Lyle Wilbur                                             | BLA      |      | Peoria              |
| Hinkley, George Meech                                          | Agr      | 21½  | DuBois              |
| Hinman, Robert Bruce                                           | Agr      | 65½  | Dundee              |
| Hinshaw, Amy                                                   | LA       | 64   | Harrisburg          |
| Hinshaw, Hazel Elizabeth                                       | HSLAS    | 109  | Ridgefarm           |
| Hinton, Stanley Winfield                                       | BLA      |      | Foosland            |

|                                                 |            |      |                     |
|-------------------------------------------------|------------|------|---------------------|
| Hippard, Wesley George                          | MnE        |      | Belleville          |
| Hipple, Roy Everett                             | Agr        |      | Waterman            |
| Hirsch, Jackson Edward                          | A          | 122  | Davenport, Iowa     |
| Hirstein, John A                                | ME         |      | Summerfield         |
| Hirt, Edward George, Jr.                        | A          | 36   | St. Cloud, Minn.    |
| Hirth, Laura Edna                               | HSAgr      | 43   | Quincy              |
| Hirtzel, Clara Lillie                           | LA         | 62½  | Effingham           |
| Hitch, Charles Bruce                            | S          |      | Bloomington         |
| Hitchcock, Earl Wilkie                          | Agr        | 67   | Hallowell, Kans.    |
| Hitt, Agnes Virginia                            | HSLAS (SS) | 52   | Herrick             |
| Hitt, Katherine                                 | LA         | 59   | Chicago             |
| Hitt, Mabel                                     | LA (SS)    | 42½  | Herrick             |
| Hiveley, Oscar George, B.S., 1909               | CE         | 143  | Freeport            |
| Hixon, Ada Hope                                 | SS         |      | Urbana              |
| Hixon, William Wason                            | BLA (SS)   | 27   | Urbana              |
| Hjort, Axel Magnus                              | S          | 100  | Chicago             |
| Ho, Nai Ching                                   | LA         | 79   | Canton, China       |
| Hobart, Clyde Monroe, A.B.,<br>1912, A.M., 1913 | SS         |      | Champaign           |
| Hodges, Earl S                                  | SS         | 8    | Ridgefarm           |
| Hodgins, William Brooks                         | ME         | 118½ | Little Rock, Ark.   |
| Hoehn, Beatrice Eva                             | SS         | 28½  | Carlinville         |
| Hoehn, Fremont John August                      | Cer (SS)   | 38   | Carlinville         |
| Hoerner, Frank A                                | S          | 57   | Peotone             |
| Hoff, John LeRoy                                | SS         | 68½  | Ottawa              |
| Hoffert, Anna Cathryn                           | LA         | 67   | Pekin               |
| Hoffman, Aaron Andrew                           | BLA        |      | Dwight              |
| Hoffman, Arthur Christopher                     | Agr        | 96   | Knoxville           |
| Hoffman, Frank Joseph                           | A          | 137½ | Sharpsville, Ind.   |
| Hoffman, George Herman                          | BLA        |      | St. Louis, Mo.      |
| Hoffman, Kay Henry                              | Agr        | 1    | Copenhagen, Denmark |
| Hoffman, Louis Arthur                           | ChE        |      | Harvey              |
| Hoffman, Lynden Evan                            | BLA        | 34   | Harvey              |
| Hoffman, Roy Albert                             | EE         | 37   | Aurora              |
| Hoffmann, George Herman                         | BLA        |      | St. Louis, Mo.      |
| Hoffmann, Reyburn Paul                          | A          | 79   | St. Louis, Mo.      |
| Hogan, Harold Eugene                            | ChE        | 32   | Lanark              |
| Hohman, Elmo Paul                               | LA         | 36   | Nashville           |
| Hoit, Maurice Elon                              | Agr        | 67   | Geneseo             |
| Holecek, Albert Bernard                         | LA         |      | Chicago             |
| Holinger, Arnold Carl                           | AE         | 36   | Chicago             |
| Hollard, Henry Walter                           | Agr (SS)   | 57   | Highland            |
| Hollister, Noble Parker                         | Agr        | 89   | Champaign           |
| Hollocher, Stanford                             | ME         |      | Clayton, Mo.        |
| Holloway, Doris Jean                            | HSLAS      | 32   | Detroit, Mich.      |
| Hollowell, Robert Ertal                         | ME         |      | Moline              |
| Holmburger, Max, Jr.                            | ME         | 79   | Chicago             |
| Holmes, Charles Vernon                          | ME         | 36   | Manteno             |
| Holmes, Laura Clark                             | HSAgr      |      | West Chicago        |
| Holmes, Oliver Wendell                          | EE         |      | Greenfield          |
| Holmes, Paul Andrew                             | CE         |      | Plymouth            |
| Holmes, Walter Edward                           | MSE        | 107½ | Chicago             |
| Holmes, Wilbur J                                | ME         | 18   | Urbana              |
| Holt, Arthur Parker                             | Agr        | 100  | Shawneetown         |
| Holton, Frankie Leo                             | LA         | 101½ | Sidell              |
| Holtze, Harry Stevens                           | AE         | 36½  | Sioux City, Iowa    |
| Homann, Ferdinand                               | Agr        | 129  | Mattoon             |
| Hoo, Te-chun                                    | MnE        |      | Hunan, China        |
| Hood, Clara Louise                              | HSAgr      |      | Chicago             |
| Hood, Clifford Firoved                          | EE         | 73   | Cameron             |
| Hoog, Ida                                       | SS         |      | Litchfield          |
| Hooper, Margaret Evelyn                         | HSLAS      |      | Chicago             |
| Hoover, Isabel                                  | LA         | 94   | Bushnell            |
| Hopkins, Elliott Budd                           | ME         | 112  | Racine, Wis.        |
| Hopkins, Eugene Canfield                        | Agr        |      | Yorkville           |
| Hopkins, Gold Samuel                            | BLA        | 49   | Champaign           |
| Hopkins, James Lee                              | Agr        |      | Roodhouse           |
| Hopkins, Mary Morton, A.B.,<br>1911             | SS         | 132½ | Champaign           |



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|---------------------------------------------------------------------------|----------|------|-----------------------|
| Hopkins, Ruth                                                             | HSAgr    |      | Chicago               |
| Hopkins, Samuel Curtis                                                    | BLA      |      | Urbana                |
| Horimura, Hirosh                                                          | EE       |      | Japan                 |
| Hormel, Dorothy Stewart                                                   | LA       |      | Wichita, Kans.        |
| Hormel, Olive Deane                                                       | LA       | 54½  | Wichita, Kans.        |
| Hornal, William                                                           | Agr      | 54   | Champaign             |
| Horney, Warren Rees                                                       | Agr      |      | Colfax                |
| Horning, Roy Arthur                                                       | Cer      | 102  | Paris                 |
| Hornkohl, Siegfried Irving Wil-<br>liam                                   | AE       | 32   | St. Joseph, Mo.       |
| Horowitz, Saul                                                            | ME       |      | Mohileff, Russia      |
| Horton, Claude Edward                                                     | ME       | 35½  | Dixon                 |
| Horwich, Louis Julius                                                     | A        | 124  | Chicago               |
| Hosfield, Percy Charles                                                   | CE       |      | Faribault, Minn.      |
| Hosford, Susan Eunice                                                     | HSLAS    | 30   | Geneseo               |
| Hoskins, Leonard Cunningham                                               | ME       |      | E. Las Vegas, N. Mex. |
| Hoskins, William, Jr.                                                     | SS       | 94   | LaGrange              |
| Hoskinson, Bruce Quin                                                     | SS       | 64½  | West York             |
| Hostetler, Joseph Columbus                                                | L        |      | Decatur               |
| Hostetler, Oliver Clinton                                                 | SS       | 17   | Charleston            |
| Hough, Charles Francis                                                    | L        |      | Danvers               |
| Hough, Estella Daisy                                                      | SS       | 11½  | Belleville            |
| Hough, Helen Elizabeth                                                    | LA       | 117  | Danvers               |
| Hough, Waldern Henry                                                      | AE       | 39   | Oak Park              |
| Houser, Irma L                                                            | LA       | 33   | Urbana                |
| Housman, John Smith                                                       | MnE      | 110  | Canton                |
| Houston, Margaret                                                         | HSAgr    | 32   | Chicago               |
| Hoversen, Albert Edwin                                                    | CE       | 2    | Chicago               |
| Howard, Carl Gooch                                                        | Agr      |      | Benton                |
| Howard, Clara Eulalie                                                     | SS       | 7½   | Benton                |
| Howe, Charles Ralph                                                       | Agr      | 46   | Champaign             |
| Howe, Edward Gardiner, Jr.                                                | Agr      | 99   | Chicago               |
| Howe, Ethan Henry                                                         | Agr      |      | Normal                |
| Howe, Harold James                                                        | L        | 31   | Galesburg             |
| Howe, Helen                                                               | LA       | 48   | Indianapolis, Ind.    |
| Howe, Sidney Peckham                                                      | Agr      |      | Macon, Ga.            |
| Howe, William Thomas                                                      | Agr      | 45½  | Tuscola               |
| Howes, Herbert Edward                                                     | Agr      | 106  | Chicago               |
| Howell, Grace Laura                                                       | SS       | 13½  | Lewistown             |
| Howk, Charles Dean                                                        | LA       | 59   | Momence               |
| Howser, James Chandler                                                    | Agr      | 106  | St. Anne              |
| Hrabik, William Kenneth                                                   | LA       |      | Murphysboro           |
| Hsieh, Zen                                                                | EE       |      | Besan, China          |
| Hsu, Han                                                                  | EE       |      | Changsha, China       |
| Hsu, Tsung Han                                                            | S        | 105½ | Shantung, China       |
| Hsun, Ching Lee                                                           | S        |      | Nan-chang, China      |
| Hu, Gor Hsi                                                               | MSE (SS) | 6    | Canton, China         |
| Hubbard, Ernest Thomas                                                    | Agr      |      | Urbana                |
| Hubbard, Esther Marie                                                     | LA (SS)  | 59   | Hazen, Ark.           |
| Hubbard, Laurence Reid                                                    | CE       | 52   | Rock Falls            |
| Hubbard, Margaret Mae                                                     | SS       | 6½   | Normal                |
| Hubbard, Mrs. Martha Koehn,<br>A.B., 1904                                 | Mus      | 138  | Urbana                |
| Hubbard, Willis Wilkinson                                                 | A        |      | Beloit, Kans.         |
| Hubhart, Oliver Sherman, B.S.<br>(Northwestern Univ.) 1906,<br>A.M., 1910 | SS       |      | Monticello            |
| Hudelson, Charles Homer                                                   | Agr      |      | Gooding, Idaho        |
| Hudson, Mary Gladys                                                       | LA       | 59   | Sullivan              |
| Huff, Marguerite Lydia                                                    | S        | 10   | Urbana                |
| Huffington, Herbert Leonard                                               | SS       | 9    | Normal                |
| Hufford, Charles Thurman                                                  | Agr sp   | 62   | Carmi                 |
| Hughes, Cecil A                                                           | Agr (SS) | 112½ | Gays                  |
| Hughes, Martin Collins                                                    | EE       | 27   | Berwyn                |
| Huisken, Arthur Herman                                                    | ChE      | 71   | Chicago               |
| Hulburd, Hazel Emily                                                      | HSLAS    |      | Cleveland, Ohio       |
| Hull, Sidney Marion                                                       | S        |      | Montello, Wis.        |
| Hulteen, Henry Waldorf                                                    | AE       | 37½  | Evanston              |
| Humphrey, Kenneth Blaine                                                  | EE       | 46   | Waterloo, Wis.        |

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|-----------------------------------------------------|-----------|------|------------------------|
| Humphreys, Robert Hatch                             | BLA       |      | Atkinson               |
| Humpidge, Herbert Leslie                            | Agr       | 31½  | Chicago                |
| Hungerford, Charles Everett                         | CE        | 62   | Loda                   |
| Hunt, Florence Jennie                               | HSLAS     | 53   | Ridott                 |
| Hunt, Leslie Lyman                                  | Agr sp    | 15½  | Sparland               |
| Hunter, James Albert                                | LA (SS)   | 140½ | Peoria                 |
| Huntington, Homer Irving                            | Agr       | 33   | Chicago                |
| Hurlburt, Helen Elizabeth                           | HSLA      |      | La Mesa, Cal.          |
| Hurst, Esther Muriel                                | LA        |      | Macy, Ind.             |
| Husband, Robert Maurice                             | ME        | 73   | Litchfield             |
| Husson, Harry Lee                                   | EE        |      | Auburn                 |
| Husted, Guy Harold                                  | Agr       | 57   | Roodhouse              |
| Husted, Lee Alfred                                  | Agr       | 57   | Roodhouse              |
| Hutchins, Marjorie                                  | Mus       | 64   | Urbana                 |
| Hutchinson, Oliver Cromwell                         |           |      |                        |
| Kemp                                                | EE        |      | Windsor, Ont.          |
| Hutchinson, Ruth                                    | LA        | 101  | Grinnell, Iowa         |
| Hutchison, Lawton Hargrove                          | EE        |      | Little Rock, Ark.      |
| Huxtable Ruben Peterson                             | Agr       |      | Kansas City, Mo.       |
| Hyde, Edith, A.B. (Ohio State Univ.) 1908           | Lb        |      | Lancaster, Ohio        |
| Hyde, Henry Fillmore                                | Agr       | 90½  | Shabbona Grove         |
| Hyde, Howard Earl                                   | Agr sp    |      | Joliet                 |
| Iddings, Vera Glee                                  | LA        | 31   | Red Oak, Iowa          |
| Ide, Lucile Mary                                    | HSLAS     | 3    | Mineral                |
| Illick, Warren C                                    | Agr       |      | Burlington, Iowa       |
| Imes, Oliver Stapp                                  | EE        | 31½  | Macomb                 |
| Inagaki, Nobtaro                                    | SS        | 127  | Tokyo, Japan           |
| Ingalls, Horace Ballou                              | Agr       | 25½  | Urbana                 |
| Ingels, Sherman                                     | Agr sp    |      | LaFayette              |
| Irish, Joe                                          | BLA       |      | Oak Park               |
| Irvin, Stanley Pieffer                              | BLA       | 48   | Griffith, Ind.         |
| Isaacson, Oliver Theodor                            | ME        |      | Lamberton, Minn.       |
| Jackman, Charles Harold                             | ME        | 37   | Elgin                  |
| Jacks, Frederick Harold                             | Agr       |      | Chicago                |
| Jacks, Joseph Francis                               | Agr       |      | Chicago                |
| Jackson, Ernest T                                   | SS        | 15½  | Odin                   |
| Jackson, Mabel J                                    | LA        | 76½  | Danville               |
| Jacob, Eda Auguste                                  | HSLAS     | 105½ | Constantinople, Turkey |
| Jacobs, Jesse Elliott                               | Agr sp    |      | Chicago                |
| Jacobs, Laura Kahn                                  | LA sp     |      | Chicago                |
| Jacquemin, Homer Frank                              | Agr       |      | Bloomington            |
| Jahr, Marvin Edward, A.B. (Univ. of Wisconsin) 1905 | Agr       | 209  | Neillsville, Wis.      |
| James, Edward Allen                                 | EE        | 74   | Amboy                  |
| James, Harriet Lillian                              | HSLAS     |      | Amboy                  |
| James, Helen Dickson, A.B., 1910, A.M., 1913        | Mus       | 134½ | Urbana                 |
| James, Lenton Willis                                | Agr       | 65   | Canton                 |
| James, Mary Winifred                                | SS        |      | Monticello             |
| Janson, John Moller                                 | S (SS)    | 95½  | East Orange, N. J.     |
| Janssen, Elmer Theodore                             | BLA       |      | Sterling               |
| Jarmin, Thornton Reeves                             | Agr       | 47   | Bloomington            |
| Jarnagin, Robert                                    | L         |      | Shelbyville            |
| Jarvis, Rowling                                     | EE        | 50   | Hinsdale               |
| Jarvis, William Bancroft                            | LA        | 64   | Chicago                |
| Jasper, Emmeline Lucinda                            | SS        | 4    | Chicago                |
| Jayne, Nina Zoe                                     | S         |      | Wheaton                |
| Jefferson, John Benjamin                            | ME        | 73   | Chicago                |
| Jenkins, Albert L                                   | SS        | 24½  | Danville               |
| Jenkins, Emmons Nathan                              | EE        |      | Griffin Corners, N. Y. |
| Jennings, Carson Gary                               | CE (SS)   | 38   | Carlinville            |
| Jennings, Walter Wilson                             | SS        | 105½ | Saint Elmo             |
| Jensen, Milton Owen                                 | BLA       | 63½  | Chicago                |
| Jentzsch, Richard Alvin                             | EE        | 67   | Chicago                |
| Jervis, Florence May                                | Mus       | 56   | Champaign              |
| Jessen, Hubert                                      | Agr       | 64   | Alto Pass              |
| Jewett, Fred Allen                                  | CerE (SS) | 38   | Burlington, Kans.      |
| Jez, Leo Charles                                    | Agr       | 84½  | Chicago                |



|                                  |          |      |                       |
|----------------------------------|----------|------|-----------------------|
| Jobst, Herman Robert             | A        |      | Omaha, Nebr.          |
| Jockisch, Anna Zelma Elizabeth   | LA       |      | Beardstown            |
| Johanning, Nora Bertha           | SS       | 54   | Champaign             |
| John, Dorette Thayer             | HSLAS    | 97½  | Clinton, Iowa         |
| Johns, Donald Charles            | MnE      | 36   | Danville              |
| Johns, Frank Adelbert            | Agr sp   |      | Rockford              |
| Johns, Wilford Espin             | Agr      | 99½  | Rockford              |
| Johnsen, Carl Eugene             | AE       | 6    | Chicago               |
| Johnson, Elfreth George          | AE       | 37   | Medora                |
| Johnson, Elmer Walfred           | CE       | 36   | Batavia               |
| Johnson, Emma Carrie             | SS       | 8    | Mt. Carmel            |
| Johnson, Harold Sucece           | A        | 82   | Chicago               |
| Johnson, Harry Julius            | Agr      | 27   | Gerlaw                |
| Johnson, Helen Margaret          | BLA      |      | Plymouth, Ind.        |
| Johnson, Julius Nicholai         | BLA      |      | Elgin                 |
| Johnson, Louis Samuel            | Agr      | 75   | Champaign             |
| Johnson, Mary Fern               | LA       | 35   | Urbana                |
| Johnson, Maurice Carl            | ME       | 37   | Omaha, Nebr.          |
| Johnson, Maynard Wayne           | BLA      | 44   | Urbana                |
| Johnson, Radford Murray          | Agr sp   | 35   | Crossville            |
| Johnson, Robert Carl             | BLA      | 97   | Pana                  |
| Johnson, Robert Eugene           | EE       | 28   | Lawrenceburg, Ky.     |
| Johnson, Robert Ulysses          | AE       | 131  | Chicago               |
| Johnson, Sydney Kent             | BLA      | 35   | Norwich, N. Y.        |
| Johnston, Clarence William       |          |      |                       |
| Henry                            | EE       | 36   | Pittsfield            |
| Johnston, Dwight Irwin           | BLA      | 32   | Seymour               |
| Johnston, Florence Ruby          | HSLAS    | 48   | Champaign             |
| Johnston, Mildred                | HSAgr    | 32   | Greensburg, Ind.      |
| Johnston, Paul Evans             | Agr      |      | Milton                |
| Johnston, Ruby Aileen            | LA       | 33   | Lamar, Colo.          |
| Jones, Alwin August              | BLA      |      | Dewey                 |
| Jones, Clifford Cronel           | Agr      | 88   | St. Louis, Mo.        |
| Jones, David Robert              | CE       | 37   | Streator              |
| Jones, Dudley Emerson            | A        |      | Little Rock, Ark.     |
| Jones, Earl Jesse                | BLA      |      | Gilbert Station, Iowa |
| Jones, Frances Beulah            | HSAgr    |      | Champaign             |
| Jones, Frank William             | Agr      |      | Bloomington           |
| Jones, J Russell                 | BLA      | 34   | Springfield           |
| Jones, Marian Lucile             | HSAgr    |      | Ft. Smith, Ark.       |
| Jones, Marvel Armored            | LA       |      | Urbana                |
| Jones, Orion Chester             | SS       | 44½  | Champaign             |
| Jones, Paul Clifford             | EE (SS)  | 36   | Henry                 |
| Jones, Paul Erastus              | A (SS)   | 90½  | Claremore, Okla.      |
| Jones, Robert Taylor, B.S., 1912 | Mus      | 148  | Urbana                |
| Jones, Walter Ortis              | BLA      | 1½   | Champaign             |
| Jones, William Robert            | Agr sp   |      | Kirkland              |
| Jordan, Ray Lewis                | A        |      | Luverne, N. D.        |
| Jorstad, Irving Clarence         | Agr sp   |      | Sheridan              |
| Jory, Herbert William            | A        | 112  | Chicago               |
| Joseph, Ada Kathryn              | Mus      | 41   | Jasper, Ind.          |
| Joseph, Paul Elihu               | MnE      |      | Broad Brook, Conn.    |
| Joyner, Mildred                  | LA       | 46   | Harrisburg            |
| Judd, Mildred Marie              | HSLAS    |      | Champaign             |
| Judson, Bryant Escar             | S        | 46   | Evanston              |
| Judson, Frank Monteath           | BLA      |      | Aurora                |
| Jue, Jook Hing                   | BLA (SS) | 61   | Canton, China         |
| Jue, Park                        | SS       | 1½   | Canton, China         |
| June, Marjorie Marie             | HSLAS    | 63   | Belvidere             |
| Jungkunz, Louis Frederic         | BLA      | 32   | Freeport              |
| Jutton, Emma Reed, B.L.S., 1899  | LA       | 123½ | Champaign             |
| Kagy, Grover T                   | SS       | 6    | Salem                 |
| Kahlert, Millicent               | LA       |      | Carlyle               |
| Kaiser, Karl John                | CerE     |      | Somonauk              |
| Kaiser, Oscar Ambrose            | S        | 73   | Somonauk              |
| Kamm, Rufus Maurice              | Ch       | 32   | Highland              |
| Kamm, Wilbur Fred                | S        | 19   | Highland              |
| Kamp, Henry Wilbur               | LA       |      | Watseka               |
| Kan, Chan Chi                    | BLA (SS) | 95½  | Shanghai, China       |

|                            |          |      |                     |
|----------------------------|----------|------|---------------------|
| Kane, Robert Clair         | EE       | 33   | Warren              |
| Kane, Roy Alexander        | A        | 120  | Sanborn, Iowa       |
| Kane, William Harold       | Ch       |      | Wellsville, N. Y.   |
| Kang, Wai                  | ME       |      | Hong Kong, China    |
| Karges, Henry Gilbert      | AE       | 113  | Evansville, Ind.    |
| Karr, Ruth Armada          | LA       | 60   | Princeton           |
| Karraker, Guy Wilford      | LA       | 83½  | Dongola             |
| Karraker, William Archie   | SS       | 7    | Ewing               |
| Kasbeer, John Harold       | A        | 8    | Normal              |
| Kasserman, Don Henry       | LA       |      | Newton              |
| Kasserman, Frederic Doty   | Agr      | 26½  | Newton              |
| Kasserman, Homer Frank     | LA       | 19   | Newton              |
| Katlinsky, Francis         | S        |      | Chicago             |
| Katzenberg, Herman Stanley | AE       | 39   | Chicago             |
| Kaufmann, Adolph Henry     | ChE      |      | Chicago             |
| Kaun, Robert Ferdinand     | EE       | 125  | Ottawa              |
| Kaup, George Albert        | Agr      |      | Chicago             |
| Kavanagh, Daniel Francis   | EE       | 28½  | Moline              |
| Kawamoto, Tane Jonathan    | EE       | 63   | Osaka, Japan        |
| Kazar, Jay Justin          | SS       | 66   | Aurora              |
| Keach, Walter Moore        | Agr      | 30   | Brownstown, Ind.    |
| Keagy, Reuel Abraham       | ME       |      | Hot Springs, Ark.   |
| Keefer, Annie Elizabeth    | HSLAS    |      | Sterling            |
| Keefer, Ruth Farwell       | SS       | 124  | Amboy               |
| Keehner, Arch Floyd        | CE       | 112  | Jerseyville         |
| Keeler, Edna Beatrice      | LA       |      | Urbana              |
| Keen, Frances Ford         | LA       | 65   | Pueblo, Colo.       |
| Keener, Ora Sylvester      | ChE      | 51   | Macomb              |
| Keese, Albert William      | Cer      | 69   | Litchfield          |
| Keese, Homer Goldsmith     | Cer      |      | Litchfield          |
| Keese, William John        | S        | 53   | Ishpeming, Mich.    |
| Kehlor, James Malcolm      | ME       | 61   | Kenosha, Wis.       |
| Keir, Floyd Earl           | Md       | 16   | Elwood              |
| Keitoku, Sakai             | ChE      |      | Fukushima, Japan    |
| Keller, Arthur Raymond     | CE (SS)  | 43½  | Mt. Carmel          |
| Keller, Bessie Opal        | LA (SS)  | 100  | Bondville           |
| Keller, Florence           | LA       | 95   | Ft. Wayne, Ind.     |
| Kelley, Alfred Pruden      | LA       | 26   | Champaign           |
| Kelley, Eunice Elizabeth   | HSLAS    | 60   | Battle Creek, Mich. |
| Kelley, Francis Hugh       | Agr      | 68   | Urbana              |
| Kelley, Henry Phillips     | Agr      | 27   | Champaign           |
| Kelley, Lena               | SS       | 16½  | Danville            |
| Kelley, Ralph Leverett     | A        | 133½ | Champaign           |
| Kelligar, Zeta Eloise      | LA       | 33   | Pana                |
| Kellogg, Amelia Lucinda    | LA       | 85   | Aurora              |
| Kelly, Everett Clyde       | Md       |      | Chillicothe         |
| Kelly, Fred Hanford        | L        |      | Mattoon             |
| Kelly, Ray Andrew          | Agr      | 26½  | Pittsfield          |
| Kemp, Arnold Ramon         | Agr      |      | Waynetown, Ind.     |
| Kemp, Orval Alton          | Agr      | 29   | Waynetown, Ind.     |
| Kendall, James Henry       | CE       | 74   | Lombard             |
| Kendall, Paul Dexter       | LA       |      | Chicago             |
| Kennedy, Hannah Ellen      | LA       | 31   | Pana                |
| Kennedy, Kaywin            | LA       | 2    | Minonk              |
| Kennedy, Luther Eugene     | S        | 85   | Springfield         |
| Kenner, Byron Florence     | ME       | 67   | Pasadena, Cal.      |
| Kennett, David Herman      | CE       |      | Milroy, Ind.        |
| Kennicott, Avis Edna       | LA       |      | Chicago             |
| Kennicott, Sylvia Adelia   | LA       | 16   | Chicago             |
| Kenshalo, Ralph            | L        |      | Fairfield           |
| Kent, Everett Frank        | Agr sp   |      | Gridley             |
| Kent, Lillian              | SS       |      | Clinton             |
| Kenyon, Frederick Newcomb  | Agr      | 116  | Peoria              |
| Keran, Paul Clemens        | L        | 24   | Urbana              |
| Kercher, Oscar B           | CE       | 108  | Goshen, Ind.        |
| Kercher, Otis              | Agr (SS) | 112  | Goshen, Ind.        |
| Kern, Alfred Eidmann       | LA       |      | Belleville          |
| Kern, Edward Lester        | EE       | 28½  | Streator            |
| Kern, Esther Allen         | HSLAS    | 100  | Berkeley, Cal.      |



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|-------------------------------------------------------------------------|------------|-------------------|---------------------|
| Kern, Florence Ellen                                                    | HSAgr      |                   | Champaign           |
| Kern, Lowell Davidson                                                   | L          | 75                | Watseka             |
| Kern, Vernon Harlow                                                     | Agr        |                   | Gays                |
| Kernall, Mrs. Morris Johnson                                            | HSAgr      | 110 $\frac{3}{4}$ | Urbana              |
| Kernoll, Russell Twist                                                  | CE         | 35 $\frac{1}{2}$  | Rochester           |
| Kerr, Grayson Alexander                                                 | Agr        |                   | Venice              |
| Kerrigan, Paul Francis                                                  | S          | 99                | Michigan City, Ind. |
| Kessler, Raymond Blaine                                                 | L          | 56                | Robinson            |
| Keusink, Helen Bertha                                                   | LA         |                   | Champaign           |
| Kibbe, Kyle Albert                                                      | S          | 11                | Urbana              |
| Kibbe, Leslie Arthur                                                    | AE         | 90                | Urbana              |
| Kidd, Albert Eugene, Jr.                                                | BLA (SS)   | 95 $\frac{1}{2}$  | Chicago             |
| Kidd, George Wilson                                                     | CE         | 69                | Chicago             |
| Kiessig, Paul Peter                                                     | Agr        |                   | Berkeley, Cal.      |
| Kilburn, Frances Marjorie, A.B.<br>(Rockford Coll.) 1911; A.M.,<br>1912 | Lb         |                   | Chicago             |
| Kilby, Hubert St. Clair                                                 | EE         | 112               | Minier              |
| Kilpatrick, Ralph Sidney                                                | BLA        |                   | Elmwood             |
| Kimberlin, Paul William                                                 | Ch         |                   | Tulsa, Okla.        |
| Kime, David O                                                           | SS         | 7 $\frac{1}{2}$   | Dudley              |
| Kincaid, Ruth Moore                                                     | HSLAS      | 4                 | Farmer City         |
| Kiner, Howard Dickens                                                   | LA         |                   | Geneseo             |
| King, DeWitt Leonard                                                    | ME         | 35                | Tonica              |
| King, Edward Herschel                                                   | BLA        |                   | Lincoln             |
| King, Edward L                                                          | SS         | 7 $\frac{1}{2}$   | Normal              |
| King, Florence Beeson                                                   | HSAgr      | 112 $\frac{1}{2}$ | Richmond, Ind.      |
| King, Noble Wilson                                                      | Agr        |                   | Hutsonville         |
| King, Vivian                                                            | HSLAS      | 40                | Richmond, Ind.      |
| Kingsbury, Howard Baker, A.B.,<br>1909; A.M., 1912                      | SS         |                   | Gardner             |
| Kingsley, Wendell Lathrop                                               | Agr        |                   | Chicago             |
| Kinsey, Alfred Richardson                                               | Agr        |                   | Centralia           |
| Kinsey, Jack                                                            | Agr        |                   | Champaign           |
| Kipp, J G Estill                                                        | EE         | 6                 | St. Louis, Mo.      |
| Kirby, Harry Anton                                                      | EE         |                   | Indianapolis, Ind.  |
| Kirby, Wayne Isaac                                                      | A          | 124               | Decatur             |
| Kircher, Armin Martin                                                   | RCE        | 46                | Chicago             |
| Kircher, Helmuth Julius                                                 | Agr        | 74                | Chicago             |
| Kirk, Bonum Lee                                                         | SS         | 185 $\frac{1}{2}$ | Champaign           |
| Kirk, Elizabeth, A.B., 1909                                             | SS         | 149               | Decatur             |
| Kirk, George Godwin                                                     | Agr (SS)   | 107               | Bellflower          |
| Kirk, Haddon Spurgeon                                                   | LA         | 68                | Bellflower          |
| Kirkland, Annirene                                                      | LA         | 101               | Urbana              |
| Kirkland, Archibald Farley                                              | A          | 65                | Cambridge           |
| Kirkpatrick, Charles Hubert                                             | L (SS)     | 26                | Lafayette, Ind.     |
| Kirkpatrick, Earl Henry                                                 | Agr        | 51 $\frac{1}{2}$  | Roseville           |
| Kirkpatrick, Frank Allen                                                | CerE       | 115               | Unionville, Mich.   |
| Kirkpatrick, Helen Marie                                                | HSLAS      |                   | Urbana              |
| Kirkpatrick, Nellie Ruth                                                | HSLAS (SS) | 103               | Moline              |
| Kirkpatrick, Sidney Dale                                                | ChE        | 41 $\frac{1}{2}$  | Urbana              |
| Kiser, Helen Mynette                                                    | HSAgr      |                   | Champaign           |
| Kisselburg, Bert Mills                                                  | Agr        | 33                | Chicago             |
| Kitchell, Jane                                                          | SS         |                   | Vincennes, Ind.     |
| Kitterman, Robert Max                                                   | ME         | 24                | Tiskilwa            |
| Klamt, Robert Herman                                                    | Agr        | 33                | Chicago             |
| Klank, Frances Grace                                                    | LA         | 35                | Champaign           |
| Klehm, George Charles Henry                                             | Agr        | 55                | Arlington Heights   |
| Klein, Carrol Aaron                                                     | A          | 35                | Davenport, Iowa     |
| Klein, Minnie George                                                    | HSLAS      | 101               | Urbana              |
| Klein, Nancie                                                           | S          | 6 $\frac{1}{2}$   | Urbana              |
| Kleinschrodt, Bernie Lloyd                                              | Agr        | 95 $\frac{1}{2}$  | Morrison            |
| Klemme, Vivian Gertrude                                                 | Mus        | 23                | Dows, Iowa          |
| Klindworth, Mildred Louise                                              | LA         | 4                 | Philo               |
| Klippel, Gustav Chapin                                                  | ChE (SS)   | 17 $\frac{1}{2}$  | Urbana              |
| Klopp, Charles Gorr                                                     | ME         | 36                | El Paso             |
| Knapp, Lloyd Dunaway                                                    | CE         | 75                | Ottawa              |
| Knappenberger, Harry Farrar                                             | A          | 114               | Macomb              |
| Knappenberger, John Meredith                                            | A          |                   | Kansas City, Mo.    |

# Undergraduate Students

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|--------------------------------|---------------|------|------------------------|
| Kneisly, Nathaniel McKay       | <i>Agr</i>    | 95½  | Guthrie, Okla.         |
| Knemeyer, Edward Franz         | <i>A</i>      | 108½ | Mason, Nev.            |
| Knoche, John Christian         | <i>Agr</i>    |      | Onarga                 |
| Knodle, Cary Lee               | <i>ME</i>     | 78   | Elgin                  |
| Knoebel, Wilbert George        | <i>A</i>      | 65½  | Highland               |
| Knowlton, Miriam               | <i>LA</i>     | 98   | Urbana                 |
| Knowlton, Elizabeth            | <i>HSLAS</i>  | 100  | Urbana                 |
| Knowlton, Philetus Clarke, Jr. | <i>A</i>      | 116  | Memphis, Tenn.         |
| Knudsen, Niels Alfred          | <i>AE</i>     |      | Clinton, Iowa          |
| Knutson, Carlot Oliver         | <i>Md</i>     |      | Huntley, Mont.         |
| Kobylanski, Joseph Ludwig      | <i>AE</i>     | 75   | Chicago                |
| Koch, Charles Edward           | <i>ME</i>     | 74   | Danville               |
| Koch, Harvey Charles           | <i>ME</i>     | 100  | Cloquet, Minn.         |
| Koebele, Cornelius Walter      | <i>CE</i>     |      | Chicago Heights        |
| Koepeke, Edward Robert         | <i>CE</i>     | 36   | Chicago                |
| Kohin, Thomas Francis          | <i>LA</i>     | 28   | La Salle               |
| Kohl, Justin Ferdinand         | <i>BLA</i>    |      | Centralia              |
| Kohn, John Louis               | <i>BLA</i>    |      | Elgin                  |
| Koll, Henry Michael            | <i>EE</i>     | 73   | Chicago                |
| Koll, Mary Elizabeth           | <i>SS</i>     | 55   | Chicago                |
| Kolmer, William Conrad         | <i>Agr</i>    |      | Waterloo               |
| Koo, Vi Tsing                  | <i>EE</i>     | 119  | Wu Sih, Kiangsu, China |
| Koptik, Bohumil James          | <i>Agr</i>    |      | Chicago                |
| Korshak, Sam                   | <i>A</i>      | 117  | Chicago                |
| Korth, Frieda Elizabeth        | <i>LA</i>     | 34   | Trivoli                |
| Koupal, Agnes Rose             | <i>HSLAS</i>  | 28   | Chicago                |
| Kouyoumjian, Garabet Hovones   | <i>EE</i>     |      | Everek, Armenia        |
| Kozinski, Lucian Charles       | <i>Md</i>     |      | Chicago                |
| Krabbe, Edward Max             | <i>REE</i>    | 110  | Urbana                 |
| Kraeckmann, Arthur Endres      | <i>Agr</i>    | 35   | Chicago                |
| Krane, Leonard Judah           | <i>AE</i>     | 35   | Chicago                |
| Kratz, Ethel Gyola, A.B., 1910 | <i>Lb</i>     |      | Champaign              |
| KreaSan, Shirley Genevieve     | <i>Mus</i>    |      | Champaign              |
| Krebs, Wilbur Edward           | <i>L</i>      |      | Belleville             |
| Kreigh, Elie Spencer           | <i>ME</i>     | 36   | Chicago                |
| Kreimeier, Werner Franklin     | <i>Agr sp</i> |      | Manhattan              |
| Kricke, Alice                  | <i>SS</i>     | 120½ | Beardstown             |
| Kriewitz, John Gustav          | <i>Agr</i>    |      | Chicago                |
| Kritzer, Richard Walker        | <i>BLA</i>    | 33   | Chicago                |
| Kromer, Carrie Adelaide        | <i>LA</i>     | 65   | Elgin                  |
| Krueger, Otto Arthur           | <i>AE</i>     | 75   | South Bend, Ind.       |
| Krug, Louis Gustave            | <i>ChE</i>    | 22½  | Chicago                |
| Ku, Tsong-Sin                  | <i>LA</i>     | 96   | Shanghai, China        |
| Kuerschen, Albert Peter        | <i>CE</i>     | 37   | Carlinville            |
| Kuhn, Henry Harrison           | <i>ME</i>     | 104  | Alton                  |
| Kuhn, Wilfred Henry            | <i>CE</i>     | 74   | Chicago                |
| Kuhnen, Proctor George         | <i>CE</i>     | 26   | Dixon                  |
| Kuhns, George Hiser            | <i>Agr</i>    |      | Argenta                |
| Kuhns, John Christian          | <i>EE</i>     | 94   | Argenta                |
| Kurt, Leo Peter                | <i>ME</i>     | 54   | Champaign              |
| Kyle, George Lane              | <i>EE</i>     | 79   | Chicago                |
| Kyle, Harriet                  | <i>SS</i>     | 8    | Havana                 |
| Lacy, John James               | <i>Agr</i>    |      | Elwood                 |
| Lackey, Kate                   | <i>LA</i>     | 35   | Lawrenceville          |
| Ladd, William Stanton          | <i>Agr</i>    | 36   | Taylorville            |
| Ladehoff, Arthur Detlef Henry  | <i>AE</i>     |      | Clinton, Iowa          |
| Lafferty, Charlotte            | <i>SS</i>     | 7    | Martinsville           |
| Lafferty, George Gustavus      | <i>SS</i>     | 31   | Galesburg              |
| Lafferty, John Samuel          | <i>AE</i>     | 74   | San Diego, Cal.        |
| LaFrenz, Grace Etheridge       | <i>LA</i>     | 61   | Bushnell               |
| Lagerstrom, Elsa Marie         | <i>HSAgr</i>  |      | Elgin                  |
| Lahman, Howard Seymour         | <i>BLA</i>    |      | Chicago                |
| Laing, Walter A                | <i>Agr</i>    |      | River Forest           |
| Lake, Arthur Howard            | <i>SS</i>     | 124  | Leland                 |
| Lake, Elmer S., A.B., 1907     | <i>SS</i>     |      | Williamsville          |
| Lake, Mrs Grace Mathers        | <i>SS</i>     |      | Cantrall               |
| Lamb, Edith Jane               | <i>LA</i>     | 101  | Champaign              |
| Lamb, Grover Cleveland         | <i>Agr sp</i> |      | Warden                 |
| Lamb, Hallie Eunice            | <i>LA</i>     |      | Champaign              |



|                                               |            |      |                   |
|-----------------------------------------------|------------|------|-------------------|
| Lambert, Leo B                                | Ch         |      | Noblesville, Ind. |
| Lamkins, Lloyd E                              | Agr        | 33   | Urbana            |
| Lanan, Guy                                    | Agr        | 33   | Kingston          |
| Landee, Anna Irene                            | LA         | 64   | Moline            |
| Landee, Marian Charlotte                      | LA sp      |      | Moline            |
| Landgraf, Theodore Rolland                    | ME         |      | Marissa           |
| Landon, Herbert Updike                        | Agr        | 105  | Jerseyville       |
| Landstrom, Adolph Walter                      | ChE        |      | Chicago           |
| Lange, Edward Leonard                         | Agr        |      | Chicago           |
| Lange, Harry Wilson                           | BLA        |      | St. Louis, Mo.    |
| Lanier, Russell D'Lyon                        | RME (SS)   | 82   | Birmingham, Ala.  |
| Lansche, Oral Albert                          | EE (SS)    | 40   | Brighton          |
| Lantz, Etta Mabel                             | HSLAS (SS) | 95   | Carlock           |
| Largent, Jess Charles                         | AE         | 38   | Champaign         |
| Larson, Carl Clarence                         | Ch         |      | Mazon             |
| Larson, Eva Lillian                           | HSLAS      | 98   | Chicago           |
| Larson, Irving Nicholas                       | AE         | 46   | LaPorte, Ind.     |
| Larson, Lambert Linus                         | ChE        | 93   | Mazon             |
| Laskin, Louis James                           | A          | 66   | Oak Park          |
| Lathbury, Clarence Sherman                    | BLA        |      | Havana            |
| Lathrop, Charlton Page                        | Agr        | 32   | Chicago           |
| Latzer, Irma Ada                              | HSLAS      | 92   | Highland          |
| Laurimore, Tyson Jarvis                       | A          |      | Spencer, Ind.     |
| Lauterbach, Edward George                     | Agr        | 55   | Bushnell          |
| Lawler, Francis Columbus                      | EE         |      | Greenfield        |
| Lawless, Joseph Conrad                        | Agr (SS)   | 96   | Carthage          |
| Lawnin, Nelson                                | ME         | 36   | Edwardsville      |
| Lawrence, Ernest                              | Agr        | 101  | Hudson            |
| Lawrence, Ralph E                             | AE         |      | Ripon, Wis.       |
| Lawrence, Roland Hall                         | ME         |      | Chicago           |
| Laws, Joel William                            | Agr sp     | 35   | Donnellson        |
| Laws, Martha Edna                             | S          |      | Alexandria, Ind.  |
| Lawson, Gilbert Foster                        | Agr        |      | Chase, Ind.       |
| Lawson, Mary Maria                            | LA         | 60   | Sidney            |
| Lawton, Bradley Cleaver                       | BLA        | 56½  | Cleveland, Ohio   |
| Lawyer, Joseph Dale                           | L          |      | Tennessee         |
| Lay, Chung-Yuen                               | SS         | 8    | Hupeh, China      |
| Layden, Edward                                | Agr sp     |      | Cheneyville       |
| Layden, Theodore Edmond                       | Agr        |      | Cheneyville       |
| Leach, Mac E                                  | LA         | 30   | Urbana            |
| Leach, Paul Jackson                           | Agr        | 60   | Macomb            |
| Leander, Elmer Isidor                         | CE         | 37   | Chicago           |
| Leatherman, Marian, A.B. (Cornell Univ.) 1907 | Lb         | 33   | Pittsburgh, Pa.   |
| Leavens, Arthur Bowen                         | AE         | 76   | Kansas City, Mo.  |
| Ledgerwood, Leroy William                     | AE         | 41½  | Springfield, Mo.  |
| Lee, Alfred Chang                             | CE         |      | Changsha, China   |
| Lee, Ellena                                   | HS Agr     | 66   | Aledo             |
| Lee, Izora                                    | HS Agr     | 100  | Reynolds          |
| Lee, Liang                                    | MnE        |      | Ming-Yuen, China  |
| Lee, William Hamilton                         | L          | 59   | Urbana            |
| Lee, Ying Nan                                 | LA (SS)    | 115½ | Canton, China     |
| Lee, Yu Gang                                  | Ch         |      | Chee-Lee, China   |
| Leggett, Travis William                       | ChE        |      | Chicago           |
| Leggitt, Frank                                | Agr        | 5    | Champaign         |
| Leggitt, Fred William                         | Agr        |      | Paragould, Ark.   |
| Lehman, Eric Maurice                          | LA         |      | Philadelphia, Pa. |
| Lehman, Lewis Harry                           | CE         |      | Mattoon           |
| Lehmann, Gertrude Emma                        | HSLAS      | 50   | Berne, Ind.       |
| Leiblsle, Roy Walter                          | A          | 35   | Des Moines, Iowa  |
| Leichsenring, Max Frederick                   | A          | 40½  | Chicago           |
| Leighty, Dana Robertson                       | Agr sp     |      | Macomb            |
| Leighty, Wayne Snyder                         | Agr        | 34   | Billet            |
| LeKander, Roy Edward                          | CE         | 31   | West Chicago      |
| Lekberg, Carl Helge Samuel                    | EE         | 90   | South Chicago     |
| Lemmon, Edgar Guy                             | LA (SS)    | 28   | Roodhouse         |
| Lemp, John Frederick                          | ChE        | 28   | Alton             |
| Lendman, Alfred Nohe                          | EE         |      | Sterling          |

|                                 |          |      |                    |
|---------------------------------|----------|------|--------------------|
| Lenhart, Norman Joseph          | BLA      | 34   | Mattoon            |
| Lenz, Andrew Henry              | EE       | 28   | Quincy             |
| Lenzen, Aloysius Francis        | ChE      |      | Peru               |
| Lenzing, Chester William        | ChE      | 31   | Chicago            |
| Leo, Shoo Tze                   | BLA      |      | Sin-Ti, China      |
| Leonard, Gladys Adeline         | LA       | 63   | Savanna            |
| Leonard, William Nathan         | Agr      | 61   | Anna               |
| Leopold, Roland Eugene          | L        | 26   | Belleville         |
| Lerch, Edward                   | AE       | 4    | Rock Island        |
| Leriche, Willis                 | MnE (SS) | 111  | Highland           |
| Leverenz, Arthur Charles Gustav | ME       | 73   | Elgin              |
| Levis, Walter Rhodes            | S        | 38   | Alton              |
| Lewis, Clara Vesta              | HSLAS    | 100  | Cairo              |
| Lewis, Hiram Calvin             | Agr sp   |      | Grand Chain        |
| Lewis, John Edwin               | MSE      | 108  | Wheaton            |
| Lewis, John Taylor              | EE       |      | Rockford           |
| Lewis, Katherine, A.B., 1912    | Lb       | 28   | Chicago            |
| Lewis, Louise Laura             | HSAgr    | 111  | Cairo              |
| Lewis, Thurlow Girard           | L sp     | 28   | Benton             |
| Lewis, William Henry            | Md       | 5    | Granite City       |
| Liang, En                       | SS       | 4    | Chingshorfu, China |
| Liang, Hsun Yiang               | ME (SS)  | 50   | Foo-Chow, China    |
| Liang, Tu Hung                  | Agr      | 63   | Canton, China      |
| Lichter, Bernard Vincent        | AE       | 4    | Chicago            |
| Lidster, Homer Edward           | Agr sp   | 11½  | Chicago            |
| Liggett, Irene Lillian          | LA       | 30   | Camp Point         |
| Liggett, Leslie Alvin           | CE       | 109½ | Peoria             |
| Lightbody, Howard D             | SS       | 4½   | Glasford           |
| Limerick, Honore                | SS       | 8    | Galatia            |
| Lin, Thian-Kitt                 | BLA      |      | Pekin, China       |
| Linbarger, Silas Carl           | CerE     | 70   | Champaign          |
| Lincoln, Clovis Ward            | ME       | 75   | Rock Falls         |
| Lindberg, George Isadore        | ME       | 70   | Princeton, Mich.   |
| Lindeberg, George Leonard       | AE       | 10   | Chicago            |
| Linder, Lewis S                 | S        | 109½ | Charleston         |
| Linder, Sven Cyril              | Cer      | 28   | Chicago            |
| Linderoth, Samuel Joseph        | A        | 6    | Chicago            |
| Lindley, Bess Mae               | LA       | 99   | Urbana             |
| Lindley, Ida Hubbard            | LA       | 58   | Urbana             |
| Lindmark, Edward Emanuel        | Cer      | 28   | Sycamore           |
| Lindsay, Horace Willard         | EE       | 30   | Rockford           |
| Lindsey, Edith Lenore           | SS       | 8    | Farmer City        |
| Lindsey, George Heath           | EE       | 83   | St. Louis, Mo.     |
| Lindsey, John Roger             | Agr      |      | Urbana             |
| Lindsey, Leon Mason             | ME       |      | Onarga             |
| Lindstrom, Stanley Edwin        | A (SS)   | 36   | Richmond, Ind.     |
| Link, Earl John                 | Agr      | 72½  | Forreston          |
| Link, Hilah Jane                | LA       | 62   | Champaign          |
| Linnard, Elmer W                | Agr      |      | Peotone            |
| Linskey, Frances Catherine      | SS       | 12   | Streator           |
| Linsley, Clyde Maurice          | Agr      | 65½  | Fairfield          |
| Liss, Oscar Lippman             | CE       | 108  | Lodz, Russia       |
| Little, Adelbert Dudley         | AE       |      | Genoa              |
| Little, Charles Reeves          | BLA      | 34   | Duluth, Minn.      |
| Little, Ethel Esther            | S        | 73   | Champaign          |
| Little, Mrs Julia Bush          | Mus      | 11   | Champaign          |
| Livesay, Ruth Flagg             | LA       | 36   | Nashville          |
| Livesay, Wallace Bright         | AE       | 131  | Waynesboro, Va.    |
| Lloyd, Thomas Harold            | Agr      | 61   | Girard             |
| Lloyde, Robert Kellogg          | Agr (SS) | 68½  | Champaign          |
| Loetterle, Winifred Christine   | SS       | 2    | Mt. Pulaski        |
| Logan, Frank Allyn              | LA       |      | Paris              |
| Logsdon, Joseph Ezra, Jr.       | Agr      | 5    | Shawneetown        |
| Logsdon, Mary Nancy             | LA       |      | Ottawa             |
| Loing, Fern M                   | LA       | 75   | Belvidere          |
| Long, John Oras                 | LA       | 36   | Watseka            |
| Long, Mayme                     | LA       |      | Champaign          |
| Long, Virgil Chase              | Agr sp   |      | Middletown         |
| Longley, Ralph Dunning          | LA       | 65   | Joliet             |



|                               |            |      |                   |
|-------------------------------|------------|------|-------------------|
| Longley, Ruth                 | HSLAS      | 44   | Noblesville, Ind. |
| Longueville, Joseph Charles   | A          | 96½  | Dubuque, Iowa     |
| Loomis, Clayton Benjamin      | Agr        | 29   | Chicago           |
| Lopez, Asuncion V             | CE         | 118  | Durango, Mexico   |
| Lotz, Harold Benjamin         | AE         | 32½  | Madison, Ind.     |
| Love, Clifford Sharon         | Agr        | 27   | Sidney            |
| Love, Estelle Boggs           | LA         | 51   | Danville          |
| Love, Mary Elizabeth          | LA         | 131  | Urbana            |
| Lovell, M McDonald            | A          |      | Chicago           |
| Loveless, William Raymond     | CE         | 94   | Macon             |
| Lowder, Adolphus              | Agr        |      | Whitestown, Ind.  |
| Lowe, Ethelbert Coke          | L          | 16   | Robinson          |
| Lowe, Lucy                    | Agr        |      | Urbana            |
| Lowenstern, Selma             | LA         |      | Urbana            |
| Lower, Paul Elton             | Agr        | 99   | Chicago           |
| Lowry, Bessie                 | LA         |      | Lead, S. D.       |
| Lubbers, Rudolph John         | Agr sp     |      | Emden             |
| Luckett, Coen L               | Md         | 103  | Terre Haute, Ind. |
| Luckhaupt, Fannie May         | SS         | 18½  | Marshall          |
| Ludvik, Benjamin Edward       | LA         | 29   | Chicago           |
| Ludwig, Ethel Lenore          | HSLAS      |      | St. Louis, Mo.    |
| Ludwig, Holly Jacob           | Agr sp     | 24½  | Muncie            |
| Ludwig, Lester John           | BLA        | 34   | Ottawa            |
| Lueder, Roy Moore             | AE         |      | Cherokee, Iowa    |
| Luedke, Gustav P              | SS         | 100½ | Chatham           |
| Lumley, Harold McLean         | Agr        | 48½  | Urbana            |
| Lumley, Leslie Robert         | Agr        | 32   | Urbana            |
| Lummis, Irwin Lytle           | ME         |      | Quincy            |
| Lund, John Virtus             | CE         | 28   | Elgin             |
| Lunde, George Richard         | Agr        | 33   | Chicago           |
| Lundeen, Curt Carl            | A          |      | Rock Island       |
| Lundgren, Andrew Victor Theo- |            |      |                   |
| dor                           | AE         | 60   | Edgar, Nebr.      |
| Lundgren, Frederick Gunard    | ME         | 73½  | Chicago           |
| Lundin, Roy Simeon            | Agr        | 70   | Chicago           |
| Lundquist, Hjalmar Theodor    | S (SS)     | 31½  | Buffalo, N. Y.    |
| Luney, Ray Timothy            | L          | 28   | DeKalb            |
| Lungren, Arthur Nathaniel     | ME sp      |      | Aurora            |
| Lungren, Edgar Emmanuel       | ChE        | 60   | Aurora            |
| Lurie, Erwin Moses            | CE         | 110  | Chicago           |
| Lurie, Sidney Joseph          | EE         | 10   | Chicago           |
| Lusk, Genevieve Aron          | HS Agr     |      | Quincy            |
| Lutz, Robert Stookey          | EE (SS)    | 76   | Decatur           |
| Lyle, Albert Francis          | SS         | 43½  | Arcola            |
| Lyle, Mary Stewart            | SS         | 1    | Shelbyville       |
| Lyman, Lewis Thornton         | Ch sp (SS) |      | Kapoho, Hawaii    |
| Lyman, Richard Dana           | Agr        | 121½ | Chicago           |
| Lynch, Virginia Esther        | HSLAS      |      | Rockford          |
| Lynn, Jane Rebekah            | SS         |      | Sparta            |
| Lynn, John Robert             | A          | 35   | Greensburg, Ind.  |
| Lyon, John Boyd               | Cer        | 36   | LaHarpe           |
| Lyons, Carrie Fay             | HSLAS      | 32   | Urbana            |
| Lyons, Florence Anna          | HS Agr     |      | Quincy            |
| Lyons, Hazel Sibyl            | HSLAS      | 25   | Urbana            |
| Lyons, Roy Jacob              | Agr        | 107½ | Urbana            |
| McAdams, May Elizabeth        | Agr sp     | 32   | Chicago           |
| McAfee, Leo Gay               | BLA        | 35   | Springfield       |
| McAllister, Ivorine           | LA         |      | St. Louis, Mo.    |
| McAnally, Jesse Franklin      | SS         | 17½  | Urbana            |
| McCabe, Claude Lee            | LA         | 102½ | Willow Hill       |
| McCabe, Lester Thomas         | Agr        |      | Ransom            |
| McCarthy, Frank William       | CE         | 32   | Washington, D. C. |
| McCarthy, John                | S          |      | Chicago           |
| McCarty, William Austin       | LA         |      | Robinson          |
| McCaskill, Kenneth Alexander  | Agr (SS)   | 82½  | Taylorville       |
| McCaughey, John Alva          | ME         |      | Chicago           |
| McCaughey, Louis Douglas      | SS         | 142  | Macomb            |
| McCaughey, William Martin     | CE         |      | Chicago           |
| McCauley, Charles Hartman     | A          | 78   | Chicago           |

|                                |            |      |                   |
|--------------------------------|------------|------|-------------------|
| McClelland, Miles John         | A          | 33½  | Boise, Idaho      |
| McCloud, James Forsyth         | BLA        |      | Sheldon           |
| McCluggage, Harry Bruce        | Ch         | 62   | Peoria            |
| McClure, Adelle Elizabeth      | Mus        |      | Atlanta           |
| McClure, Leo Winifred          | HSLAS      | 49   | Chrisman          |
| McClurkin, Clifford Henry      | L          | 27   | Morning Sun, Iowa |
| McColley, Carrie Lucile        | HSLAS      | 60   | Shelbyville       |
| McConnel, Isaac Marion         | Agr        | 106  | Reynolds          |
| McConnell, Marvin Greer        | LA         |      | Chicago           |
| McConoughey, A Davies          | Cer        |      | Chicago           |
| McCormack, Joseph Hume         | ChE        | 47   | LaSalle           |
| McCormick, Elmer               | ME         | 122½ | Pontiac           |
| McCown, Viana B                | SS         | 19   | St. Joseph        |
| McCoy, Alva Elisha             | Agr (SS)   | 33   | Altamont          |
| McCoy, Henry James             | SS         | 62   | Amboy             |
| McCoy, Homer Walter            | Agr        |      | Mt. Sterling      |
| McCoy, John Jay                | Cer        | 85   | Chicago Heights   |
| McCracken, Howard Orr          | Agr        | 92½  | Paxton            |
| McCracken, Wendell Kemp        | BLA        | 31   | Paxton            |
| McCredie, Anna Louise          | LA         |      | Wadsworth         |
| McCuen, Glenn William          | Agr        | 74   | Chebanse          |
| McCullough, Helen E            | HSLAS (SS) | 20   | Urbana            |
| McCumber, Charles William      | AE         | 50½  | Chicago           |
| McDermott, Raymond Adam        | Md         |      | Batavia           |
| McDonald, James Edward William | MnE        | 110  | Chicago           |
| McDougle, May                  | HS Agr sp  | 16   | Charleston        |
| McElveen, William Thomas, Jr   | BLA        |      | Evanston          |
| McEvoy, Thomas Treston         | Agr        |      | Chicago           |
| McFall, Dumas Miller           | LA         | 31   | Mattoon           |
| McFarland, Dan                 | Agr        | 34   | McLean            |
| McFarland, Ellis Dean          | Agr        | 96   | Camp Point        |
| McFarland, Robert Bruce        | A          | 51   | Topeka, Kans.     |
| McFerson, William H            | AE         | 42   | Boulder, Colo.    |
| McGaughey, Guy Ennis           | LA         | 63   | Lawrenceville     |
| McGee, Edna Amelia             | LA (SS)    | 118  | St. Joseph        |
| McGee, Ralph Mayfield          | LA         |      | Champaign         |
| McGehee, Seelye Wright         | Agr        |      | Urbana            |
| McGhee, Ora M                  | Agr sp     | 69   | Morris City       |
| McGowan, Thomas                | LA         |      | Decatur           |
| McGrath, Floyd Lawrence        | Md         |      | Savanna           |
| McGrath, James Miles           | S          | 94½  | Springfield       |
| McGrath, Richard Cecil         | Ch         |      | Chicago           |
| McGraw, Katherine Leslie       | LA         | 98   | Urbana            |
| McGregor, Dudley Gear          | CerE       |      | Maywood           |
| McGuinness, Hugh Stanley       | Md         |      | Chicago           |
| McGuire, Thomas Forrestt       | EE         |      | Noblesville, Ind. |
| McInnes, Frances Jean          | S (SS)     | 37   | Champaign         |
| McIntyre, Esther               | HSLAS      |      | Newman            |
| MacIntyre, Katherine Gladys    | HS Agr     | 29   | Chicago           |
| McKay, Dea David               | L          |      | Canton            |
| McKean, Leonard Albert         | SS         | 52½  | Woodson           |
| MacKechnie, Harry Woodington   | AE         | 20   | Brooklyn, N. Y.   |
| McKee, Edna Belle              | LA         | 68   | Kankakee          |
| McKee, Josephine Pearl         | Mus        | 24   | Fairbury          |
| McKee, Mary Annette            | HSLAS      |      | Kankakee          |
| McKee, Olivetta C              | HSLAS      | 94   | Fairbury          |
| McKelvey, Elizabeth Argyle     | SS         |      | Sparta            |
| McKeon, Joseph Moore           | MSE        | 42   | Buffalo, N. Y.    |
| McKeown, John Latimer          | AE         | 77   | Chicago           |
| McKinnell, Isabelle Georgie    | SS         | 43½  | Beardstown        |
| McKinney, Lela Fern            | SS         |      | Wingate, Ind.     |
| McKinney, Norman               | Agr        |      | Chicago           |
| McKnight, Timothy Irle         | L          | 28   | Oblong            |
| McKown, Russell L              | A          |      | Davenport, Iowa   |
| McLaughlin, James William      | ME         | 134  | Paris             |
| McLaughlin, Walter Wylie       | Agr sp     |      | Cartter           |
| McLean, Libbie Whitman         | SS         | 6    | Zanesville, Ohio  |
| McLean, Sarah                  | SS         | 13   | DeKalb            |



|                                 |          |      |                    |
|---------------------------------|----------|------|--------------------|
| McManus, James Bernard          | SS       | 31½  | Normal             |
| McMillen, George Burr           | BLA      | 69   | Champaign          |
| MacMillen, Lloyd Allen          | EE       |      | Grayslake          |
| McNalley, Mary Cecilia          | SS       | 102  | Pueblo, Colo.      |
| MacNelly, William A             | AE       |      | Indianapolis, Ind. |
| McNulta, Scott                  | LA       |      | Decatur            |
| MacPherson, Earle Steele        | ME       | 81½  | Highland Park      |
| McRobie, Douglas                | Cer      | 37   | Montclair, N. J.   |
| McVay, Thomas Newkirk           | Cer      | 135  | Urbana             |
| McVeigh, Henry Hancock          | Agr      | 30½  | Springfield        |
| McVey, Nellie Frances           | LA       |      | Hill City, Kans.   |
| McVey, Ruth                     | HS Agr   |      | Hill City, Kans.   |
| McWethy, Dan Valentine          | LA (SS)  | 115½ | Aurora             |
| McWilliams, James Lawrence      | Agr      |      | East St. Louis     |
| McWilliams, Marie Lindsey       | Mus      | 9    | Urbana             |
| Macbeth, Grace                  | Mus      | 95   | Villa Grove        |
| Macdonald, Alexander Paul, Jr.  | Agr      | 33   | Morris             |
| Machovec, Edward Paul           | ME       | 20½  | Kansas City, Mo.   |
| Macis, Juan Rafael              | Agr      | 9    | New York City      |
| Mackie, Elton Thomas            | Agr      |      | New Orleans, La.   |
| Maclean, Lachlan William        | S        |      | Wilmette           |
| Macomber, Frank Bartlett        | BLA      |      | Oak Park           |
| Madden, Alma Julia              | SS       | 6    | Georgetown         |
| Madden, Grace Ermine            | LA (SS)  | 31   | Champaign          |
| Madden, Helen Louise            | LA (SS)  | 69½  | Champaign          |
| Madden, William Dillon James    | SS       | 2    | Cincinnati, Ohio   |
| Mader, August                   | AE       | 79   | Farmer City        |
| Magruder, Denton Adlai          | LA       | 29½  | Potomac            |
| Mah, Wing Ngui                  | LA       |      | Canton, China      |
| Maher, Mary V                   | SS       | 2    | Champaign          |
| Mahn, George Willis             | AE       | 37   | Urbana             |
| Mahood, Harry Samuel            | CE       | 32   | Mt. Carroll        |
| Main, James Floyd               | LA       |      | Gibson City        |
| Malaise, Clayton Lee            | EE       | 109  | Serena             |
| Maley, Robert Carleton          | ME       | 73   | Rochelle           |
| Malhot, Ulysses                 | Ch       |      | Maywood            |
| Mallett, Norman James           | Cer E    |      | Jervis, N. Y.      |
| Maloit, Pauline Germaine        | LA       | 29   | Elmhurst           |
| Mandeville, William Howard      | Agr      |      | Winnebago          |
| Manley, Otis Rowe               | LA       |      | Harvard            |
| Manley, Pearl M                 | SS       | 51   | Yorkville          |
| Mann, Arthur Sidney             | A        | 86   | Kankakee           |
| Mann, Edith Melvina             | LA (SS)  | 107  | Kankakee           |
| Mann, Edna Frances              | HSLAS    |      | Oak Park           |
| Mann, Glenn Roy                 | EE       |      | Flora              |
| Mann, Harold Abraham            | Agr sp   | 24½  | Mannville, Fla.    |
| Mann, Lloyd Chester             | LA       |      | Robinson           |
| Mann, Walter                    | Ch       |      | Harvey             |
| Mannix, Pauline Marie Elizabeth | Mus      |      | Champaign          |
| Mapel, Frances Pauline          | HS Agr   |      | Fairbury           |
| Marbold, Margaret Ann           | LA       | 60   | Greenview          |
| Marbold, Pauline                | LA       | 15   | Greenview          |
| Markmann, Carl Bennett          | REE (SS) | 29   | St. Louis, Mo.     |
| Marks, Frances Hazel            | LA       | 31   | Plymouth, Ind.     |
| Marks, Maude Irene              | LA       |      | Plymouth, Ind.     |
| Marks, Sarah Ann                | S        | 80½  | Pecatonica         |
| Markwardt, Henry William        | RCE      |      | Elgin              |
| Markwell, Olen Crow             | Agr      | 27½  | Stonington         |
| Marquis, Du Bois                | Agr      | 154  | Bloomington        |
| Marquis, Leo Daniel             | A        | 72   | Milford            |
| Marrs, Junia Pearl              | LA       | 60   | Sciota             |
| Marsh, Carrie Ethel             | SS       | 12½  | St. Joseph         |
| Marsh, J S                      | Agr      |      | Saunemin           |
| Marsh, Nellie May               | SS       | 15½  | St. Joseph         |
| Marshall, Donald Cameron        | AE       | 40   | Milwaukee, Wis.    |
| Marshall, Ralph William         | LA       | 52   | West Chicago       |
| Marshall, Robert Haskell        | S (SS)   | 115  | Gamaliel, Ky.      |
| Marten, Haslett Charles         | ME       |      | New Albany, Ind.   |
| Martin, Cline C                 | L        |      | Latham             |

|                                                       |                 |      |                      |
|-------------------------------------------------------|-----------------|------|----------------------|
| Martin, Dwight Ray                                    | <i>Agr</i>      |      | Mason City           |
| Martin, Earl Ray                                      | <i>Agr</i>      | 27½  | Prophetstown         |
| Martin, Elsie Everett, A.B.<br>(Univ. Minnesota) 1905 | <i>Lb</i>       |      | Minneapolis, Minn.   |
| Martin, Esther Evelyn                                 | <i>SS</i>       | 14   | Bridgeport           |
| Martin, Fay Waldo                                     | <i>BLA</i>      | 27   | Mt. Carmel           |
| Martin, Giles Emmet                                   | <i>A</i>        |      | Los Angeles, Cal.    |
| Martin, Harold Montgomery                             | <i>CE</i>       |      | Cairo                |
| Martin, Harry Samuel                                  | <i>CE</i>       |      | Lincoln              |
| Martin, I Edgar                                       | <i>EE</i>       |      | Sullivan             |
| Martin, Joe Neely                                     | <i>L</i>        |      | Sullivan             |
| Martin, John Eden                                     | <i>LA</i>       |      | Sullivan             |
| Martin, Joy Delos                                     | <i>Agr sp</i>   |      | Chicago              |
| Martin, Olive Eden                                    | <i>SS</i>       | 81   | Sullivan             |
| Martin, Robert Walter                                 | <i>S</i>        |      | Sullivan             |
| Martin, Thaddeus Albert                               | <i>Agr</i>      |      | Newton               |
| Marx, Frederick August Kuhs                           | <i>CE</i>       | 73½  | St. Louis, Mo.       |
| Marx, George Bernard                                  | <i>BLA</i>      | 20   | Aurora               |
| Mason, Arthur Helgeson                                | <i>BLA</i>      | 28   | Urbana               |
| Mason, Eleanor Louise                                 | <i>LA</i>       |      | LaSalle              |
| Mason, Ross Seguire                                   | <i>ME</i>       | 75   | Buda                 |
| Massey, Linna Irene                                   | <i>SS</i>       | 4½   | Litchfield           |
| Mateer, Howard Wilson                                 | <i>EE</i>       | 36   | Rutland              |
| Mather, Rose Margaret, A.B.,<br>1905                  | <i>Lb</i>       |      | Planfield            |
| Mather, William Asher                                 | <i>Agr</i>      |      | Aurora               |
| Mathers, Aaron                                        | <i>LA</i>       | 94   | Laura                |
| Mathers, Andrew Jackson                               | <i>Agr</i>      | 44½  | Laura                |
| Mathews, William B                                    | <i>SS</i>       | 104  | Yates City           |
| Matoba, George Hajime                                 | <i>EE</i>       |      | Kioto City, Japan    |
| Matteson, Glenn Harlow                                | <i>Agr</i>      | 61½  | Fairfield            |
| Mattingly, Leo Joseph                                 | <i>AE</i>       | 37   | Champaign            |
| Mattingly, William Brashear                           | <i>Agr</i>      | 99½  | Cairo                |
| Mattison, John Dwight                                 | <i>CE</i>       | 75   | Oregon               |
| Mattoon, Edwin Whitaker                               | <i>S</i>        | 69   | Champaign            |
| Maury, Thomas Edward                                  | <i>ME</i>       | 110  | Rossville            |
| Mavity, Maurine                                       | <i>HSLAS</i>    | 26   | Valparaiso, Ind.     |
| Mavor, Hugh Nelson                                    | <i>AE</i>       | 37   | LaGrange             |
| Maxwell, Leslie Blaine                                | <i>Cer</i>      |      | Paris                |
| Maxwell, Loyal C                                      | <i>ChE</i>      |      | Flat Rock            |
| May, Clifford Blaine                                  | <i>Agr</i>      | 15   | Kirkland             |
| May, Erie Oscar                                       | <i>SS</i>       | 16   | Newton               |
| Maynard, Donald Edmund                                | <i>Md</i>       |      | Chicago              |
| Maze, Hamilton Murray                                 | <i>S</i>        |      | Peru                 |
| Meade, Anna                                           | <i>SS</i>       | 7    | Danville             |
| Mealiff, Arthur Edward                                | <i>Agr</i>      | 33   | Chicago              |
| Meals, Robert Woodruff                                | <i>Agr</i>      |      | Peoria               |
| Means, Helen Alice                                    | <i>SS</i>       |      | Lebanon, Ind.        |
| Medigovich, George Vaso                               | <i>BLA</i>      |      | Bisbee, Ariz.        |
| Meek, Wilbur                                          | <i>BLA</i>      | 23   | Carrollton           |
| Mehl, Wallace Willis                                  | <i>L</i>        | 60   | Goshen, Ind.         |
| Mehlhop, Margaret Mildred                             | <i>S</i>        | 57   | Havana               |
| Meisenhelder, Benjamin                                | <i>BLA</i>      | 35   | Palestine            |
| Melin, George Edgar                                   | <i>Agr</i>      | 14   | Moline               |
| Melnick, Louis I                                      | <i>LA</i>       |      | Burlington, Vt.      |
| Meltz, Nathan                                         | <i>Agr (SS)</i> | 50   | Ekatermoslaw, Russia |
| Mench, Berenice Luella                                | <i>LA</i>       | 33   | Urbana               |
| Meneley, Olive Myrtle                                 | <i>Mus</i>      | 29   | Champaign            |
| Menke, Arnold Edward                                  | <i>S (SS)</i>   | 66   | Evansville, Ind.     |
| Mercer, Walter Witchell                               | <i>L (SS)</i>   | 66   | Vermont              |
| Mercey, Raymond John                                  | <i>Md</i>       | 32   | Saint David          |
| Meredith, Ina Valeria                                 | <i>S</i>        | 89   | Perry                |
| Meredith, LaVerne                                     | <i>HSLAS</i>    |      | Perry                |
| Meriwether, Shannon                                   | <i>A</i>        |      | Sedalia, Mo.         |
| Merrill, George Wilson                                | <i>Agr sp</i>   |      | LeRoy, Kans.         |
| Merrill, Thompson Arlene                              | <i>LA</i>       | 114½ | Beardstown           |
| Merrills, Marshall Crittenden                         | <i>LA</i>       | 108  | Belleville           |
| Merritt, Cora Leone                                   | <i>HSLAS</i>    |      | St. Louis, Mo.       |
| Metz, Carl Altgeld                                    | <i>CE</i>       | 74   | Tolono               |



|                                                    |            |     |                         |
|----------------------------------------------------|------------|-----|-------------------------|
| Metzger, Leroy Paul                                | BLA        | 28  | Cairo                   |
| Metzler, Arthur Maurice                            | BLA        | 50  | Champaign               |
| Meyer, Alfred Werner                               | ChE        |     | Chicago                 |
| Meyer, Alvin Frederic                              | Agr        |     | Deerfield               |
| Meyer, Carl Theodore                               | A          | 30  | Springfield             |
| Meyer, Emma                                        | SS         | 15½ | Waterloo                |
| Meyer, George, Jr.                                 | ME         | 125 | Chicago                 |
| Meyer, George William                              | A (SS)     | 40  | Davenport, Iowa         |
| Meyer, John Theodore                               | Md         |     | Rock Falls              |
| Meyer, Orval Conrad                                | ME         | 33  | Vincennes, Ind.         |
| Meyer, Ralph                                       | LA         |     | Flora                   |
| Meyer, Raymond Edward                              | BLA        |     | Chicago                 |
| Mickelson, Jens Christian                          | EE         | 6   | Chicago                 |
| Middleton, Edith Anna                              | LA         | 4   | Chicago                 |
| Middleton, Julian Gilbert                          | AE         |     | Pomona, Cal.            |
| Miers, Roy Hamilton                                | Agr        | 71  | Burney, Ind.            |
| Miessler, Erich Carl                               | S          | 30  | Crete                   |
| Miessler, Herbert Theodore                         | BLA        |     | Crete                   |
| Miles, Joseph Porter                               | Agr        | 99½ | Lewistown               |
| Miles, May                                         | HSAgr (SS) | 36  | Garden City, Kans.      |
| Miles, Ruth Columbia                               | LA (SS)    | 16½ | Urbana                  |
| Miles, Thomas Boyd                                 | Agr        |     | Lewistown               |
| Millar, Frank Washington                           | BLA        |     | Oak Park                |
| Millar, Russell Ward                               | Ch         | 38  | Mattoon                 |
| Miller, Albert Smith                               | LA         |     | Peoria                  |
| Miller, Clayton Allen                              | EE         | 117 | Tiffin, Ohio            |
| Miller, Clyde Albert                               | SS         |     | Sunbury, Pa.            |
| Miller, Clyde Lindley                              | ME         | 32  | Urbana                  |
| Miller, Daniel Edwin                               | ME         | 44  | Quincy                  |
| Miller, Elliott Strong                             | BLA        | 25½ | Oak Park                |
| Miller, Erwin Franklin                             | A          | 49½ | Onarga, Kans.           |
| Miller, Fred Raney                                 | LA         | 32  | Gilman                  |
| Miller, John Harold                                | EE         | 73  | Oak Park                |
| Miller, John Millage                               | MnE        |     | Evansville, Ind.        |
| Miller, Marcus Gilbert                             | A          | 105 | Girard, Ohio            |
| Miller, Marion Elizabeth                           | LA         | 35  | Milledgeville           |
| Miller, Marion Graffam                             | HSAgr      |     | Chicago                 |
| Miller, Mary Marguerite                            | HSLAS      |     | Urbana                  |
| Miller, Mildred Naomi                              | Mus        |     | Sidell                  |
| Miller, Olive Fiedele                              | LA         | 100 | Atlanta                 |
| Miller, Ora Lucile                                 | HSLAS      | 82  | Atlanta                 |
| Miller, William Pitt, B.S., 1901                   | Agr        | 155 | Bloomington             |
| Milleson, Cecil Clyde                              | Agr        |     | East St. Louis          |
| Millizen, Edna Varner                              | LA (SS)    | 70  | Champaign               |
| Mills, Fred Leon                                   | LA         | 11  | Chicago                 |
| Mills, Grace Aldine                                | HSLAS      |     | Houston, Texas          |
| Mills, John Turner                                 | Agr        | 35  | McNabb                  |
| Milne, Agnes Mabel                                 | HSLAS      | 68  | Lockport                |
| Milne, Minnie Isabel                               | HSLAS      | 87  | Lockport                |
| Miner, Harry Eugene                                | BLA        | 25½ | Chicago                 |
| Miner, Henry                                       | Agr sp     |     | Waverly                 |
| Miner, Lester Ward                                 | Agr        | 92½ | Shelbyville             |
| Miner, William                                     | SS         | 60½ | Cambria, Iowa           |
| Mink, Dwight L.                                    | EE         |     | Galva                   |
| Minkema, William Herman                            | ME         |     | Chicago                 |
| Minnis, Emma Lewis                                 | SS         | 8½  | Louisville, Ky.         |
| Minnis, Lemuel Ernest                              | Agr        | 33  | Chicago                 |
| Missimer, Dale Johnson                             | A          |     | Colorado Springs, Colo. |
| Mitchell, Elsie Louise                             | HSAgr      | 43  | Havana                  |
| Mitchell, Eva, A.B., 1912                          | SS         | 134 | Urbana                  |
| Mitchell, George William                           | Agr        |     | Marion                  |
| Mitchell, Grace                                    | LA         | 33  | Urbana                  |
| Mitchell, Grover Ira                               | ME         | 90½ | Cornell                 |
| Mitchell, Helen                                    | LA         | 99  | Urbana                  |
| Mitchell, Leonard Osgood                           | Agr        | 5   | Chicago                 |
| Mitchell, Lucile                                   | SS         | 82½ | Urbana                  |
| Mitchell, Marguerite, A.B. (Wilmington Coll.) 1910 | LA         | 77  | Wilmington, Ohio        |
| Mitchell, Ruffin Edward                            | MnE        | 110 | Carbondale              |

|                                                       |                 |                  |                          |
|-------------------------------------------------------|-----------------|------------------|--------------------------|
| Mitchell, William Leland                              | <i>Md</i>       | 31               | New York City            |
| Mix, Martin Ira, B.S., 1913                           | <i>EE</i>       | 149              | Chicago                  |
| Mizoguchi, Gundayu                                    | <i>EE (SS)</i>  | 107              | Saga, Japan              |
| Moenkhaus, Carl William                               | <i>S</i>        |                  | Huntingburg, Ind.        |
| Moffett, Donald Romain                                | <i>LA</i>       |                  | Paxton                   |
| Moffett, Thomas Oscar                                 | <i>EE</i>       |                  | Oakland                  |
| Mohlman, Harry                                        | <i>Agr</i>      | 31               | Urbana                   |
| Mohr, Alba Agnes                                      | <i>LA (SS)</i>  | 69               | Beardstown               |
| Mohr, John Henry                                      | <i>ME</i>       |                  | Chicago                  |
| Moir, Robert Burrill                                  | <i>CE</i>       | 113              | Minneapolis, Minn.       |
| Molinelli, Cecil Lambert                              | <i>A</i>        |                  | Urbana                   |
| Molt, Margaret Ellen                                  | <i>LA</i>       | 101              | Clinton, Iowa            |
| Molyneaux, Juniata Onita                              | <i>LA</i>       |                  | Woodland                 |
| Monroe, George Stuart                                 | <i>Ch</i>       | 38               | Hillsboro                |
| Montague, Albert Richardson                           | <i>RCE</i>      | 79               | Chicago                  |
| Montgomery, Cecile, A.B., 1911                        | <i>SS</i>       | 143 <sup>1</sup> | Urbana                   |
| Montgomery, Earl Livingston                           | <i>ME</i>       | 6                | Chicago                  |
| Montgomery, Thaddeus Lemert                           | <i>Md</i>       |                  | Dexter, Mo.              |
| Montooth, Charles Stuart, A.B., 1905                  | <i>SS</i>       | 150 <sup>5</sup> | Bradford                 |
| Moody, Granville Griffith                             | <i>Agr</i>      | 5                | Rensselaer, Ind.         |
| Moon, Lawrence Bartelle                               | <i>ME</i>       |                  | Columbus, Ohio           |
| Moon, Maud Maye                                       | <i>SS</i>       | 112              | Tuscola                  |
| Mooney, Raymond                                       | <i>EE</i>       | 46               | Chicago                  |
| Moor, Enid Alberta                                    | <i>LA</i>       |                  | Jamestown, N. Y.         |
| Moor, Hubert Watson                                   | <i>Ch</i>       |                  | Champaign                |
| Moore, Herbert Jackson                                | <i>Agr</i>      | 70 <sup>1</sup>  | Chicago                  |
| Moore, James Gregory                                  | <i>LA</i>       | 92 <sup>1</sup>  | Streator                 |
| Moore, Marlin Clarkson                                | <i>Agr</i>      | 43               | Chicago                  |
| Moore, Mary Rebecca, A.B., 1911                       | <i>Mus</i>      | 132              | Tolono                   |
| Moore, Nellie Anna                                    | <i>SS</i>       | 33 <sup>8</sup>  | Pittsfield               |
| Moore, Richard Jacob                                  | <i>Agr</i>      | 56               | Griggsville              |
| Moore, Ruby Frances                                   | <i>LA</i>       | 103 <sup>1</sup> | Urbana                   |
| Moore, William Abner                                  | <i>LA (SS)</i>  | 39               | Urbana                   |
| Moran, Katherine Mary                                 | <i>HSAgr</i>    |                  | Bartlesville, Okla.      |
| Morehead, Herbert Leslie                              | <i>A</i>        | 39 <sup>1</sup>  | Cedar Rapids, Iowa       |
| Morey, Mrs. Edna Elizabeth Cox                        | <i>Mus</i>      | 105              | Sheridan, Ind.           |
| Morgan, Chester Arthur                                | <i>MnE (SS)</i> | 70               | Virden                   |
| Morgan, Everette Harmon                               | <i>ChE</i>      | 32               | Harvey                   |
| Morgan, Grace Busey                                   | <i>LA</i>       | 99               | Urbana                   |
| Morgan, John William                                  | <i>SS</i>       | 115 <sup>1</sup> | Clayton                  |
| Morgan, Ralph Waldo                                   | <i>ChE</i>      | 31               | Macomb                   |
| Morgan, Thomas Sherman                                | <i>LA</i>       | 33               | East St. Louis           |
| Morin, Oswell                                         | <i>Md (SS)</i>  | 18               | Danville                 |
| Morkel, William Algervon Kingsmill                    | <i>Agr</i>      |                  | Cape Town, South Africa  |
| Murray, Kenneth Ralph                                 | <i>Agr</i>      | 33 <sup>1</sup>  | Vienna                   |
| Morrell, Ralph Leonard                                | <i>CE</i>       | 91               | Chicago                  |
| Morris, Ercel                                         | <i>SS</i>       | 8                | Danville                 |
| Morris, Josephine Annette                             | <i>SS</i>       | 5                | Murphysboro              |
| Morris, Nelson Marvin                                 | <i>MnE</i>      |                  | Harrisburg               |
| Morris, Vernon Leslie                                 | <i>AE</i>       | 69               | Congress Park            |
| Morrison, Carl Raymond                                | <i>MnE</i>      |                  | Columbus, Ind.           |
| Morrison, Donald Kenneth                              | <i>S (SS)</i>   | 95               | Winnetka                 |
| Morrison, Helen Sinclair                              | <i>HSAgr</i>    | 71               | Joliet                   |
| Morrison, Ivan                                        | <i>Agr</i>      |                  | Fairbury                 |
| Morrison, William Raymond                             | <i>LA</i>       | 85               | Waterloo                 |
| Morrissey, Edward Henry                               | <i>BLA</i>      | 57 <sup>1</sup>  | Champaign                |
| Morrow, Irwin Gealy                                   | <i>A</i>        | 3                | Zimmerman, La.           |
| Morse, Jessie                                         | <i>LA</i>       | 96               | Indianapolis, Ind.       |
| Morse, John Hamilton                                  | <i>BLA</i>      | 85               | Troy, Pa.                |
| Moseley, Beauregard Fred, Jr.                         | <i>S</i>        |                  | Chicago                  |
| Moses, Robert Louis                                   | <i>Agr</i>      | 31               | Chicago                  |
| Mosher, Edna, B.S.A. (Cornell Univ.) 1908; M.S., 1913 | <i>SS</i>       |                  | Kempt Shore, N. S., Can. |
| Mosher, James Barnes                                  | <i>Agr</i>      | 26               | Prophetstown             |
| Mosier, Leota Irene                                   | <i>HSLAS</i>    | 33               | Urbana                   |
| Moss, Clarence Sedgwick                               | <i>A</i>        | 36               | Charles City, Iowa       |
| Moss, Gladys Ione                                     | <i>HSLAS</i>    | 63               | Chicago                  |



|                             |        |      |                        |
|-----------------------------|--------|------|------------------------|
| Moss, Ruth Alice            | SS     | 70   | Mt. Vernon             |
| Mossholder, Paul Rhodes     | Agr    |      | Dixon                  |
| Mostoller, Harvey Gove      | Agr    | 51   | Bloomington            |
| Moton, Albert Franklin      | S      |      | Cairo                  |
| Mottern, Layton Robert      | BLA    | 33   | Russellville, Ind.     |
| Mottier, Julia Louise       | HSLAS  | 32   | Gibson City            |
| Mouch, William George       | Cer    | 49   | Milford                |
| Mount, Orville Bert         | SS     |      | Mt. Vernon             |
| Mounts, Will Walter         | Agr    | 39½  | Carlinville            |
| Mourning, Paul Wetzel       | L      | 12   | Rushville              |
| Movitt, Perle               | LA     |      | Chicago                |
| Muckelroy, Renzo            | SS     | 106  | Mt. Vernon             |
| Mueller, Alphose John       | AE     |      | Granite City           |
| Mueller, Carl Oscar         | AE     |      | Chicago                |
| Mueller, Harrie Stevens     | Agr    | 111½ | Wichita, Kans.         |
| Mueller, Harry Louis        | Ch     | 30   | Highland               |
| Mueller, Herbert Edward     | AE     |      | Chicago                |
| Mueller, Herbert Zoller     | EE     | 36   | Quincy                 |
| Mulac, Louis Edward         | ME     | 42   | Chicago                |
| Mulford, Edgar Theodore     | CE     |      | Mason City             |
| Mullins, Edward Richard     | A      | 21   | Champaign              |
| Mulvaney, Charles Stewart   | CE     | 113½ | Chicago                |
| Munson, John Leonard        | Agr    |      | Randolph               |
| Murata, Motosaburo          | EE     |      | Shingu, Japan          |
| Murdock, Elizabeth Adams    | Mus    | 31   | Champaign              |
| Murphy, Dennis Herman       | SS     | 7½   | Kokomo, Ind.           |
| Murphy, Everett Franklin    | Agr    | 28   | Marshall               |
| Murphy, George Raymond      | EE     |      | Faribault, Minn.       |
| Murphy, Howard Dawson       | Agr    | 14½  | Chicago                |
| Murphy, Margaret            | SS     | 14   | Carlinville            |
| Murr, Milton                | CE     | 105  | Chicago                |
| Murray, Forrest Hamilton    | S      | 90½  | Mazon                  |
| Murray, Grace Mildred       | LA     | 5    | Champaign              |
| Murray, Lyle Gordon         | Agr    |      | Mazon                  |
| Murray, Oscar James         | BLA    | 33   | Chicago                |
| Murray, Sprague Elmo        | Agr    |      | Mazon                  |
| Murrin, John Henry          | CE     | 56   | New York City          |
| Mussenden, Ruth Isabel      | HSLAS  | 35   | Roswell, N. Mex.       |
| Myers, Harry B              | LA     |      | Rushville, Ind.        |
| Myers, Odessa Madge         | LA     | 105  | Mansfield              |
| Myers, Rachel Flossie       | S (SS) | 76½  | Huntington, W. Va.     |
| Myers, Waldo Ray            | BLA    | 27   | Mansfield              |
| Mylroie, John Miller        | Ch     | 5    | Lawrence, Kans.        |
| Naden, Clifford F           | Agr    |      | Yorkville              |
| Nag, Nripendra Kuma         | EE     |      | Dacca, India           |
| Nag, Surendra Chandra       | MSE    |      | Calcutta, India        |
| Nagel, Marcella Elizabeth   |        |      |                        |
| Adelaide                    | HSAgr  | 99   | Terre Haute, Ind.      |
| Nakada, Kyoichi             | EE     | 28   | Okayomaken, Japan      |
| Nakayama, Moki              | EE     | 40   | Kochi-ken, Japan       |
| Nance, Wiley Finney         | EE     | 32   | Urbana                 |
| Naprstek, Frank Joseph      | AE     | 119  | Chicago                |
| Nathan, Myer Oscar          | A      | 169  | Boone, Iowa            |
| Nay, Ernest Omar            | Md     | 31   | Marshall               |
| Nazif, Ismail Nazim         | Agr sp |      | Constantinople, Turkey |
| Nazmi, Salih                | Agr    |      | Constantinople, Turkey |
| Nebel, Clarence Arthur      | Agr    | 70½  | Urbana                 |
| Nebel, Dora Myrtle          | SS     | 131½ | Urbana                 |
| Nebold, Grace               | SS     | 7    | Jacksonville           |
| Needham, John Wilbert       | AE     | ½    | Urbana                 |
| Needler, Helen Montgomery   | HSAgr  | 97   | Chicago                |
| Needler, Julien Hequembourg | EE     | 10   | Chicago                |
| Neighbour, Leonard Bowman   | ME     |      | Dixon                  |
| Nelson, Adolph Lincoln      | ME     | 43   | Galesburg              |
| Nelson, Altoc Sigma         | LA     |      | Big Rock               |
| Nelson, Carl Ray            | ME     | 101  | Gothenburg, Sweden     |
| Nelson, Elmer Lawrence      | AE     | 12   | Chicago                |
| Nelson, James Ray           | ME     | 75   | Moline                 |
| Nelson, J Ward              | Agr    |      | Champaign              |

# Undergraduate Students

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|                             |          |      |                         |
|-----------------------------|----------|------|-------------------------|
| Nelson, Leon Wilfred        | Agr      | 31   | Knoxville               |
| Nelson, Milton Nels         | LA       | 65   | Chicago                 |
| Nelson, Myrtle Pauline      | HSLAS    | 26   | Moline                  |
| Nelson, Peter Swan          | ME       | 120  | DeKalb                  |
| Nelson, Ralph Augustus      | ChE      | 85   | Chicago                 |
| Nelson, Walter Stephen      | EE       | 57   | Chicago                 |
| Nelson, William Oscar       | ME       | 5    | Peoria                  |
| Neslage, Oliver John        | ME       | 48   | St. Louis, Mo.          |
| Neuhalfen, Mathias          | AE       | 62½  | Grand Island, Nebr.     |
| Neuling, Harry John         | SS       | 64   | Ellis Grove             |
| Neville, Florence Edith     | LA       | 63   | Kewanee                 |
| New, Tsunyoong              | Agr (SS) | 90   | Pekin, China            |
| Newar, Jacob Clare          | AE       | 4    | Chicago                 |
| Newburn, Gene Edgar         | Agr      |      | Hoopeston               |
| Newburn, Harold James       | LA       | 22   | Hoopeston               |
| Newburn, Naomi Olive        | HSLAS    | 104  | Urbana                  |
| Newell, George Arthur, Jr.  | BLA      | 97   | Medina, N. Y.           |
| Newell, Moses Elmer         | L        | 28   | Girard                  |
| Newell, Mrs Ralph           | Mus sp   |      | Westfield               |
| Newenham, Raymond           | SS       | 16   | Hersman                 |
| Newkirk, Madge Wilmot       | HSLAS    | 22   | Chrisman                |
| Newlin, Harold Vance        | S        | 2    | Robinson                |
| Newlin, Ralph Thomas        | LA       |      | Robinson                |
| Newman, Fred Allen          | Agr sp   | 10½  | Wayne City              |
| Nichol, Frances Alcetta     | HSLAS    | 15   | Columbus, Ohio          |
| Nichol, George William      | LA       |      | Anderson, Ind.          |
| Nichols, Floris Wilson      | BLA      | 31   | Wenona                  |
| Nichols, Josephine Marie    | LA       |      | Dixon                   |
| Nichols, Rae Crampton       | Agr      | 67½  | Chicago                 |
| Nichols, Walter Lester      | CE       | 66   | St. Louis, Mo.          |
| Nicholson, Margaret         | SS       | 13½  | Gibson City             |
| Nickels, Albert Henry       | Md       |      | Lake Elmo, Minn.        |
| Nickelsen, John Minert      | ME       | 112½ | Mediapolis, Iowa        |
| Nickolls, Cecil Richard     | Agr (SS) | 32   | Stark                   |
| Nilsen, Peter Jacob         | EE       | 69   | Arendal, Norway         |
| Niven, Will Edward          | BLA      |      | Thorntown, Ind.         |
| Niver, Roe                  | S        | 74   | No. Fairfield, Ohio     |
| Nixon, M L                  | Agr      | 18½  | Newport, Ind.           |
| Nixon, Robert Henry         | Agr      | 26½  | Newport, Ind.           |
| Noack, Emilie Marie         | BLA      | 60   | Chicago                 |
| Noble, Joseph Morgan        | BLA      | 71   | Wichita, Kans.          |
| Nolan, Albert Joseph        | Agr      | 31   | Harvard                 |
| Noon, John Elliott          | LA       | 98   | Lunenburg, Mass.        |
| Noonan, Will Joseph         | ME       | 38   | Decatur                 |
| Norak, Edward James, Jr.    | Agr      |      | Chicago                 |
| Norberg, Alfred             | CE       | 86   | Urbana                  |
| Norburn, Aurelia May        | SS       |      | Danville, Va.           |
| Nordenholt, Walter          | Agr      |      | Oak Park                |
| Nordling, Harry Richard     | CE       |      | Rantoul                 |
| Nordstedt, Einar August     | ME       | 57   | Joliet                  |
| Norlin, Fred Christian, Jr. | CE       | 42   | Chicago                 |
| Norris, Dwight Reed         | BLA      |      | Newman                  |
| Norris, Kathryn Lenore      | HSLAS    |      | Frankfort, Ind.         |
| Norris, Wesley Kayler       | CE       | 73   | Chicago                 |
| North, Clyde James          | Agr      | 33   | Winchester              |
| Norton, Edward J            | EE       |      | Macomb                  |
| Noth, Edwin Francis         | A        | 118  | Davenport, Iowa         |
| Novak, Edward James, Jr.    | Agr      |      | Chicago                 |
| Noxon, Elmer Warner         | ME       | 36   | St. Louis, Mo.          |
| Nutter, De Noyelles         | ME       |      | Martinsville, Ind.      |
| Nye, Linn Jones             | Agr      | 53   | Harristown              |
| Oakes, Ella Baxter          | HSAgr    |      | Laura                   |
| Oaks, Helen Lucille         | LA       |      | Kirkwood                |
| O'Bar, Alleen Hall          | LA       | 96   | Champaign               |
| Ochoa, Vizcaino Alfonso     | A        |      | Chicago                 |
| O'Connell, William Rolfe    | LA       |      | Springfield             |
| O'Connor, Reynal Elias      | CE       |      | Buenos Aires, Argentina |
| Odell, Arthur Allen         | BLA      | 66   | Aguaanga, Cal.          |
| O'Donnell, Louise Laurette  | HSAgr    | 9    | Galesburg               |



|                                         |          |      |                      |
|-----------------------------------------|----------|------|----------------------|
| Oglethorpe, Thomas Blackburn            | A        |      | Manistee, Mich.      |
| Ohinata, Chiyosi                        | BLA      | 16   | Najano, Japan        |
| Olander, Ernest Allen                   | CE       |      | Topeka, Kans.        |
| Olbrick, Fred George                    | CE       |      | Cedar Falls, Iowa    |
| Olin, Irene Balfour                     | LA       | 73   | Evanston             |
| Oliver, Marie Arnold                    | HSAgr    | 53   | Maywood              |
| Oliveras, Ovidio                        | ChE      |      | Porto Rico           |
| Olsen, Anna Margaret                    | SS       | 30   | Chicago              |
| Olsen, Arthur Alexis                    | Agr      |      | Newark               |
| Olsen, Carlton Frederick                | ME       | 73   | Chicago              |
| Olseng, Harry Christian                 | Agr      | 70   | Chicago              |
| Olson, Agnes Mildred                    | HSLAS    | 94   | Galesburg            |
| Olson, Robert Harold                    | AE       | 69   | Chicago              |
| O'Meara, Allan Richard                  | Agr      |      | Chicago              |
| O'Meara, James Joseph                   | MSE      | 38   | Chicago              |
| O'Neil, John James                      | Md       |      | Bloomington          |
| O'Neil, William George                  | AE       | 17½  | Faribault, Minn.     |
| Oppy, Glenn C                           | Agr      |      | Urbana               |
| Orcutt, Arthur Henry                    | Agr      | 130½ | Arcola               |
| Ordonez, Benito René, Jr.<br>B.S., 1913 | REE      | 144½ | Saltillo, Mexico     |
| Ormsby, Lelia Mae                       | S (SS)   | 96½  | Greenup              |
| Orr, Clarence                           | LA       | 109  | Auburn               |
| Orr, Harold Vaughn                      | EE       | 108  | Covington, Ky.       |
| Orr, Mary Elizabeth                     | LA       | 99   | Pekin                |
| Ort, Emma F                             | HSLAS    | 52   | Wahoo, Nebr.         |
| Osborn, Leland George                   | Ch       | 98½  | Alton                |
| Osborne, Edith Virginia                 | HSAgr    |      | St. Louis, Mo.       |
| Osborne, Pauline Theodora               | LA       | 81   | Champaign            |
| Osburn, Reuel S                         | LA       | 26   | Wilmington           |
| Osgood, Willard Palmer                  | LA       |      | Decatur              |
| Osgood, Wilbur Broadwell                | Agr      |      | Stillman Valley      |
| Ostermeier, Bertha Johanna              | SS       | 5    | Springfield          |
| Oswalt, Benjamin Alonzo                 | BLA (SS) | 45½  | Anderson, Ind.       |
| Oswood, Mabel Cedelia                   | LA       |      | Morris               |
| Ott, Ben Athony                         | A        |      | LaCrosse, Wis.       |
| Ott, David Lee                          | ME       | 27½  | Prophetstown         |
| Ott, Edward Stanley                     | LA       |      | Mt. Hermon, La.      |
| Ott, John Ehem                          | ME       |      | Chicago              |
| Ott, Percy Wright                       | EE       | 58   | Mt. Hermon, La.      |
| Ottinger, Tracy Rollin                  | LA       | 9½   | Delta, Ohio          |
| Otto, Gordon                            | Agr      |      | Peoria               |
| Otwell, Ralph B                         | Agr      | 82½  | Carlinville          |
| Ousley, Harold Paul                     | BLA (SS) | 102  | Paris                |
| Overend, Harrison George                | A        | 23½  | Edelstein            |
| Overton, Ralph Marion                   | ME       |      | Winchester           |
| Owen, Charles Norton                    | ME (SS)  | 35   | Chicago              |
| Owen, Harry Lea                         | AE       | 34   | Plano                |
| Owens, Cassius Marcellus                | LA       | 66   | Louisville, Ky.      |
| Owens, Raymond William                  | EE       | 108  | Morris               |
| Oyler, James Loyd                       | ME       | 37   | Taylorville          |
| Packer, George Washington, Jr.          | A        |      | Kansas City, Kans.   |
| Page, George James                      | ChE      |      | Chicago              |
| Pagin, John Beitner                     | ME       | 57   | LaGrange             |
| Paige, Clyde Anson                      | A        |      | Pomona, Cal.         |
| Paine, Olive Allen                      | S        | 102  | No. Woodstock, Conn. |
| Painkinsky, David                       | Ch       | 31   | Chicago              |
| Painter, Earl Irving                    | SS       | 5½   | Foosland             |
| Paisley, Lela Isabel                    | SS       | 2½   | Urbana               |
| Palmer, Charles Shattuck                | Ch       |      | Urbana               |
| Palmer, Gerald Lewis                    | S        | 20   | Chicago              |
| Palmer, Julius Clark                    | EE (SS)  | 109  | Augusta              |
| Panhoe, Henry Aki                       | CE       | 109  | Kamuela, Hawaii      |
| Panhorst, Frederick William             | CE       | 73   | Urbana               |
| Pappmeier, John Frederick               | BLA      |      | Litchfield           |
| Parent, Eugene Joseph                   | LA       | 48   | Menominee, Mich.     |
| Parish, William Love                    | AE       | 37   | Greenfield           |
| Park, John Wallace                      | A        | 112  | Chicago              |
| Parker, George Thomas                   | BLA      |      | Carrollton           |

|                                                 |            |      |                    |
|-------------------------------------------------|------------|------|--------------------|
| Parker, Helen Lucie, A.B., 1913                 | Mus        | 155  | Champaign          |
| Parker, Horatio Newton                          | SS         | 5    | Champaign          |
| Parker, Raymond Webb                            | EE         | 73   | Champaign          |
| Parker, Warren Kender                           | Agr        | 66½  | Arlington Heights  |
| Parkhill, Ray Clayton                           | SS         |      | Irving             |
| Parkin, Carl Wilson                             | CE         |      | Elgin              |
| Parkins, Earle Henderson                        | Agr        | 99½  | Chicago            |
| Parkinson, Elouise                              | BLA        |      | Centralia          |
| Parkinson, Kenneth Warren                       | Agr        | 32   | Maxwell            |
| Parks, Catherine Elizabeth                      | LA         | 20   | DuQuoin            |
| Parks, Frank Austin                             | LA         |      | Urbana             |
| Parks, Wilma Gay                                | LA         | 64   | Cooperstown        |
| Parr, Harold Lucian                             | Cer (SS)   | 26   | Urbana             |
| Parrilli, Henry                                 | EE         |      | Chicago            |
| Pasewalk, Lloyd Herman                          | CE         | 128  | Norfolk, Nebr.     |
| Patten, Norman Bond, Jr.                        | AE         | 81   | Minneapolis, Minn. |
| Patterson, Charles Roy                          | L          | 28   | Sullivan           |
| Patterson, Joseph Julian                        | A          | 30   | Danville           |
| Patterson, Nellie Rand                          | HS Agr     | 16   | Chicago            |
| Patton, Frederick William                       | Agr        |      | Montclair, N. J.   |
| Pauli, Adolph Frederick                         | LA         | 32   | Peoria             |
| Payne, Lawrence Edwin                           | CE         | 39   | Carthage           |
| Payne, Veda Louise                              | S          | 125  | Chicago            |
| Peadro, Earl D                                  | CE         | 109  | Sullivan           |
| Pearson, Homer Arnold                           | EE         |      | Thorntown, Ind.    |
| Pearson, Paul Leo                               | Agr        | 33   | North Crystal Lake |
| Peck, Norma Lee, A.B. (Ottawa Univ.) 1913       | Lb         |      | Ottawa, Kans.      |
| Peck, Roy Lee                                   | CE         | 37   | Oak Park           |
| Peeples, William McCord                         | S          | 97   | Evansville, Ind.   |
| Peirce, Earle Carleton                          | ME         | 75   | Chicago            |
| Peirce, Stanley Keith                           | BLA        | 2    | Wilmette           |
| Pell, Flossie Marie                             | LA         | 33   | Urbana             |
| Pendarvis, Harry Reed                           | EE         | 41   | Chicago            |
| Pendarvis, Wilbur Otis                          | LA         | 60   | Media              |
| Pendleton, Clyde Fugate                         | MnE        |      | East St. Louis     |
| Pengilly, Henry Eugene                          | ME         | 114  | Chicago            |
| Pennewill, Patience Elizabeth                   | HSLAS      |      | Washington         |
| Penney, Mildred Haynes                          | Mus        | 16   | Chicago            |
| Penrose, Alma Meriba, A.B. (Oberlin Coll.) 1901 | Lb         | 6    | Grinnell, Iowa     |
| Percival, Marion Louise                         | S (SS)     | 96½  | Champaign          |
| Percival, Stella Rebecca                        | Mus        | 15   | Champaign          |
| Perin, Florence May                             | A          | 4    | Newtown, Ohio      |
| Perkins, Lester Belz                            | Agr        |      | Oak Park           |
| Perlman, William Polakow                        | CE         |      | Chicago            |
| Perrott, Richard Henry                          | SS         | 24½  | Claremont          |
| Perry, Alice Jane                               | SS         | 8    | Dwight             |
| Perry, Edna Maud, A.B., 1909                    | SS         | 147½ | Urbana             |
| Perry, Edna Verne                               | SS         | 54   | Urbana             |
| Perry, Herbert John                             | Ch         |      | Racine, Wis.       |
| Perry, Margaret Campbell                        | HSLAS (SS) | 59   | Urbana             |
| Perry, Ralph Grover                             | MnE        | 73   | Urbana             |
| Perry, Robert Ashman                            | ME         |      | Urbana             |
| Perry, Sherman                                  | SS         |      | Mier, Ind.         |
| Pervier, Carrie May                             | HSLAS      | 99   | Sheffield          |
| Peters, Albert G                                | SS         | 6    | Gibson City        |
| Peterson, Axsel Bunker                          | Agr        |      | Momence            |
| Peterson, Chester Almon                         | Agr        |      | Galesburg          |
| Peterson, Hilding Cunard                        | ME         | 122  | Chicago            |
| Peterson, Joe Oliver                            | Md         |      | Princeton, Minn.   |
| Peterson, John Wallace                          | Agr sp     |      | Urbana             |
| Peterson, Reuben Walter                         | Agr        |      | Chicago            |
| Peterson, William Chandler                      | A          | 33   | North Crystal Lake |
| Pethybridge, Frank Howard                       | Agr        |      | Chicago            |
| Pettit, Arthur Edwin                            | LA         |      | Stuttgart, Ark.    |
| Petty, Manley Ross                              | CerE       |      | Sumner             |
| Pettys, Wilbur Orlando                          | ME         |      | Urbana             |
| Peyraud, Albert Paul                            | A (SS)     | 61   | Chicago            |



|                              |            |      |                      |
|------------------------------|------------|------|----------------------|
| Pfeiffer, Conrad Louis       | EE         |      | Chicago              |
| Pfeiffer, Rudolph Salisbury  | ME         | 43   | Peoria               |
| Phelps, Howard Horace        | Agr        | 66   | Wells, Mich.         |
| Phelps, John Carne           | ME         | 110  | Oak Park             |
| Philbrick, Lois              | LA         |      | Champaign            |
| Philbrick, Marie Bertie      | LA         |      | Chicago              |
| Phillips, Anna Marie         | LA         |      | Decatur              |
| Phillips, Ruth               | HSLAS      |      | East Cleveland, Ohio |
| Phoenix, Maida Jane          | LA         | 34½  | Pittsburg, Pa.       |
| Pick, Elza Nicholas          | Agr        |      | Lexington            |
| Pieper, John                 | Agr        | 57½  | Urbana               |
| Pierce, Amy Ethel            | SS         | 2    | Alden                |
| Pierson, Frank Harlan        | ME         |      | Fairfield, Iowa      |
| Pierson, Walter Raymond      | LA         | 39   | Princeton            |
| Pihlgard, Eric Frederick     | A          | 37½  | Chicago              |
| Pike, George Hyde            | BLA        | 64   | Silvis               |
| Pinault, Louis Clovis        | A          | 89½  | St. Joseph, Minn.    |
| Ping, Clarence Edgar         | Agr (SS)   | 40   | Auburn               |
| Pinkley, James Pierpont      | A          | 32   | Gibson City          |
| Pinkney, Fred Theodore       | ChE        | 64   | Chicago              |
| Pinkney, Leslie Arthur       | SS         | 3    | Sterling             |
| Piper, Howard Herbert        | SS         | 3    | Paris                |
| Pitsenbarger, Ethel Gertrude | LA         | 29   | Champaign            |
| Pittman, Mervin Everitt      | Agr        |      | Sullivan, Ind.       |
| Pitts, John Joseph, Jr.      | LA         | 103½ | Bloomington          |
| Plack, Theodore              | CE         | 120  | Urbana               |
| Plagge, Irwin Fred Willard   | Ch         |      | Deerfield            |
| Planck, Catharine Melvina    | HSAgr      | 105½ | Chicago              |
| Plaster, Mary Alvira         | LA         |      | Marshall             |
| Platt, Casper                | L          |      | Danville             |
| Pletcher, Velma Coe          | HSLAS      | 24   | Rochester, Ind.      |
| Pogue, Harold Austin         | BLA        | 33   | Decatur              |
| Pogue, Paul Wright           | BLA        | 113  | Findlay              |
| Pogue, Stanley Landon        | L          | 59   | Decatur              |
| Poirot, Severine Andrew      | LA         |      | Belleville           |
| Polakow, Alexander Hyman     | AE         | 67   | Chicago              |
| Polk, Robert Edmund          | Cer        |      | LaGrange             |
| Polk, Wesley William         | MSE        | 36   | LaGrange             |
| Pollard, Leila Jean          | HSAgr (SS) | 100  | St. Charles          |
| Pollard, Lottie Emily        | Mus        | 40   | Chicago              |
| Pollock, Harry Robb          | Agr        | 123  | Champaign            |
| Pollock, Samuel McNabb       | Agr sp     |      | Seaton               |
| Pool, Ernest Howard          | LA         | 70   | Ottawa               |
| Pope, Lawrence Arthur        | EE         | 98   | Moline               |
| Porter, Clarence L           | Md         |      | Belvidere            |
| Porter, Flora May            | Agr        | 26   | Urbana               |
| Porter, Harry Hubert         | MnE        |      | Gerlaw               |
| Porter, Webster K            | ChE        | 28   | Belvidere            |
| Portuondo y Miyares, Antonio | Agr (SS)   | 128½ | Santiago, Cuba       |
| Postel, Frederick William    | BLA        | 71   | Mascoutah            |
| Postel, Mertie Amalia        | LA         | 120  | Mascoutah            |
| Postel, Urban Stuart         | BLA        |      | Mascoutah            |
| Poston, Floyd Emerson        | S          | 92   | Crawfordsville, Ind. |
| Potter, Ellis J              | A          | 96   | Champaign            |
| Potter, Emery Vern           | EE (SS)    | 67   | Champaign            |
| Potter, Glenn Edward         | EE         |      | Springfield          |
| Potter, Philip Harry         | Agr        |      | Chicago              |
| Pound, Frances Lillian       | LA         |      | Chicago              |
| Powell, Bernice              | LA (SS)    | 97½  | Des Moines, Iowa     |
| Powell, Walter Clement       | Agr sp     |      | Chicago              |
| Powell, Hazel Florence       | SS         | 14   | Urbana               |
| Powelson, Horace Elwood      | SS         | 8    | Galesburg            |
| Power, Paul Waring           | BLA        | 10½  | Petersburg           |
| Powers, J Orin               | SS         | 110  | Petersburg           |
| Powers, John Howard          | LA         |      | Decatur              |
| Powers, LeRoy Tallman        | Agr        | 100½ | Sterling             |
| Powers, Ray Austin           | Agr        |      | Joliet               |
| Powers, Fred Richmond        | Agr        | 88½  | Tiskilwa             |
| Prasil, Anton                | ChE        | 108  | Berwyn               |

|                                         |            |      |                   |
|-----------------------------------------|------------|------|-------------------|
| Pratt, William Carl                     | AE         |      | Rockford          |
| Presson, Lola Iris                      | HSLAS (SS) | 34   | Champaign         |
| Preus, Paul Randolph Arctander          | CE         | 104½ | LaCrosse, Wis.    |
| Price, Charles Bradlaw                  | Agr        | 66   | Vienna            |
| Price, Leota                            | SS         |      | Lebanon, Ind.     |
| Price, Melville Halsey                  | Ch         |      | Chicago           |
| Prickett, Alva LeRoy, A.B., 1913        | SS         | 134  | Litchfield        |
| Primm, James Kelly                      | S          | 38   | Champaign         |
| Primm, Pauline Elizabeth                | Mus (SS)   |      | Champaign         |
| Primm, Philip Timon                     | Agr (SS)   | 28   | Champaign         |
| Prince, William Jasper                  | Ch (SS)    | 57½  | Coin, Iowa        |
| Pringle, James Ward                     | AE         |      | Farley, Iowa      |
| Pritzlaff, Charles Phillip              | SS         | 89   | Chicago           |
| Propst, Duane Willard                   | S          | 33   | Springfield       |
| Prouty, Edwin Chester                   | CE         | 115  | Chicago           |
| Pruett, Eugene Francise                 | Agr        | 32   | Kinmundy          |
| Pruitt, Joe Lida                        | Mus        | 48   | Urbana            |
| Pugh, Ada Roberta                       | HSLAS (SS) | 93½  | Champaign         |
| Pung, William Sing-Chong                | RCE (SS)   | 110  | Honolulu, Hawaii  |
| Purcell, William Thomas                 | AE         | 10   | Chicago           |
| Purdy, Raymond Harry                    | A          | 66   | Vincennes, Ind.   |
| Pursell, James Roland                   | EE         |      | Chicago           |
| Pursley, Emma Stine                     | LA         | 69   | Kansas City, Mo.  |
| Pusey, Frank Whitcomb                   | Agr        | 68   | Fresno, Cal.      |
| Putnam, Forrest Lavern                  | BLA        |      | Des Moines, Iowa  |
| Putnam, Persis, A.B. (Smith Coll.) 1911 | LA         |      | Chicago           |
| Pyron, John Elder                       | ChE        | 31   | St. Louis, Mo.    |
| Quandt, Coramae                         | HSAgr      |      | Wabash, Ind.      |
| Quesenberry, Ruth Lucille               | HSLAS      | 25   | Mansfield         |
| Questel, Benjamin Harrison              | Agr        | 16½  | Carmi             |
| Quick, Charles Albert                   | SS         | 5    | Monticello, Ind.  |
| Quick, George Edward                    | AE         | 112  | Tiskilwa          |
| Quick, Harry                            | ME         | 18   | Tiskilwa          |
| Quilling, Erwin Albert                  | BLA        |      | Menomonie, Wis.   |
| Quinn, Bernice Mae                      | LA         | 117  | LaFayette         |
| Raab, Anita Emma                        | LA         | 67   | Belleville        |
| Raaberg, Ralph Skancke                  | AE         | 6    | Chicago           |
| Radell, Fred Ziegler                    | Agr        |      | Chicago           |
| Radmore, Eleda Blake                    | Mus        | 15   | Chicago           |
| Rahn, Reinhardt Phillip                 | ME         |      | Thornton          |
| Rahn, Robert Charles                    | CerE       | 36   | Chicago           |
| Rahn, Rudolph                           | ME         |      | Thornton          |
| Raibourn, Claude                        | BLA        | 31   | Waterloo          |
| Raibourn, Paul Albert                   | EE         |      | Waterloo          |
| Raithel, Arthur Christopher             | EE         | 43   | Chicago           |
| Rall, Eugene Robert Paul                | CE (SS)    | 77   | Chicago           |
| Ramey, Clara Ruth                       | SS         | 8    | Greensboro, Ala.  |
| Ramey, Frank Willard                    | AE         | 27   | Champaign         |
| Ramsay, Crawford John                   | SS         | 8    | Olney             |
| Ramser, John Hubert                     | ME         |      | Alma              |
| Ramsey, Leonidas Willing                | Agr        | 97½  | Hazlehurst, Miss. |
| Randall, Grace Louise                   | LA         |      | Rogers Park       |
| Randall, Thomas David                   | CE         | 80   | Chicago           |
| Randolph, Cora Creagar                  | LA (SS)    | 4    | Urbana            |
| Randolph, Edith Schultz                 | SS         | 4    | Fort Scott, Kans. |
| Randolph, Hallie Burnside               | Agr        | 102  | Covington, Ind.   |
| Rang, Carl King                         | L          |      | Rockford          |
| Ranger, Katherine Mae                   | LA         |      | Harvey            |
| Ranney, Joel Alden                      | Agr        |      | Cazenovia         |
| Ranney, Willard Parminter               | Agr        |      | Cazenovia         |
| Ransom, Ethel Alice, A.B., 1913         | LA         | 131  | Havana            |
| Rapp, Edwin Wallace                     | Md         | 32   | Aurora            |
| Rapp, John Holly                        | LA         | 64   | Fairfield         |
| Rapp, Peter George                      | LA         | 34   | Fairfield         |
| Rappaport, Benjamin Julius              | AE         | 116  | Chicago           |
| Rappleye, Willard Cole                  | S          | 56   | Menominee, Mich.  |
| Raskas, Joseph Ralph                    | Agr        |      | St. Louis, Mo.    |
| Raskewitz, Arthur                       | ME         |      | Chicago           |



|                             |             |      |                      |
|-----------------------------|-------------|------|----------------------|
| Rasmussen, Robert P         | LA          |      | Chicago              |
| Ratcliff, Glenn             | L           | 31   | Greemp               |
| Rathbun, Hubert Honens      | ChE         |      | Spring Valley        |
| Rathfon, William Owen       | CerE        | 70   | Chicago              |
| Rathsack, Robert Everett    | ME          |      | Greenview            |
| Rauch, Paul Vincent         | A           | 89   | Wichita, Kans.       |
| Raut, Alfred                | Agr (SS)    | 95   | Sedalia, Mo.         |
| Ray, Bankim Chandra         | EE          | 89   | Calcutta, India      |
| Ray, Julian David           | SS          | 101½ | Hagarstown           |
| Rayburn, Allan Barnes       | Agr         | 67   | Bloomington          |
| Reace, William Thomas       | EE          | 74   | Chicago              |
| Reader, Emma Grace          | HS Agr      | 48   | Centralia            |
| Reagan, Maurice Edwin       | EE          | 30½  | Canton               |
| Reber, Edwin Perry          | ME          | 55   | Rockford             |
| Rechsteimer, Carl Ulrich    | S           |      | Lowell, Ohio         |
| Redborg, Carl Eric          | SS          | 131½ | Batavia              |
| Redmon, Blossom Della       | SS          | 6    | Decatur              |
| Reed, Clara Mabel           | LA          | 80   | Champaign            |
| Reed, Gratia Jewett         | HSLAS       | 69   | Warsaw               |
| Reed, Hazel Viola           | HS Agr      |      | Webster, Mo.         |
| Reed, Maurice Johnson       | MnE         |      | Emerson              |
| Reeder, John Corwin         | SS          | 38½  | Arcola               |
| Reeder, Samuel James        | Agr         |      | Bloomington          |
| Reese, Leal Wiley           | LA          | 31   | Pana                 |
| Reese, Lucile Nancy         | LA          |      | Pana                 |
| Reeves, Herman Thornton     | Agr         | 147  | Citronelle, Ala.     |
| Rehling, Charles Henry      | Agr         | 63½  | Waterloo             |
| Rehnquist, Ernest Ferdinand | EE          |      | Chicago              |
| Reid, Ernest Alexander      | EE          | 110  | Deer River, Minn.    |
| Reid, Olive Gertrude        | SS          | 11½  | Urbana               |
| Reilly, Raymond Thomas      | MSE         | 108  | Waukegan             |
| Reimert, Robert Rutter, Jr. | AE          | 125  | Chicago              |
| Reinel, Bert Edward         | LA          | 6    | Streator             |
| Reinhart, Irvin Julius      | Agr         | 65   | Alhambra             |
| Reinsch, Bernhard Paul      | A           | 43   | Tama, Iowa           |
| Reiter, Rutherford Graff    | Agr         |      | Hillsboro, Ore.      |
| Remington, Mac              | A           |      | St. Louis, Mo.       |
| Rensburg, William Norris    | Ch          | 22   | LaMoille             |
| Renner, Julia Elizabeth     | LA          | 61   | Urbana               |
| Renner, Sylvia Pearl        | HS Agr      | 97   | Urbana               |
| Reno, Guy Benjamin          | LA          | 72   | Browning             |
| Reno, Ona                   | SS          |      | Rushville            |
| Rentchler, Edna Kerr        | SS          | 8    | Belleville           |
| Rentchler, Frieda Clara     | SS          | 4    | Belleville           |
| Renwick, George W           | ME          | 39   | Chicago              |
| Renwick, Ruth Margaret      | LA          | 122  | Chicago              |
| Reschetz, Ernst Mathers     | EE          |      | Staunton             |
| Retz, Catherine Mabel       | HSLAS       |      | Ottawa               |
| Reuling, Clarence Weiss     | BLA         |      | Morton               |
| Rexwinkle, Daphne Margaret  | Mus         | 101  | Vandalia             |
| Rhea, Chleo James Jared     | EE (SS)     | 89   | Jacksonville         |
| Rhodes, Carlyle Seeds       | CE          | 37   | Lovington            |
| Ribback, Louis              | Agr         | 58½  | Chicago              |
| Rice, Grover Colvin         | S (SS)      | 110½ | Irving               |
| Rice, Hugh Monroe           | Agr         | 97½  | Gillespie            |
| Rice, Katherine Grace       | LA sp       |      | Philo                |
| Rice, Mary Katherine        | HS Agr      |      | Tuscola              |
| Rice, Samuel Howard         | S           | 76   | Lewistown            |
| Rich, Donald Bert           | Agr         | 68½  | Chicago              |
| Rich, Milton Daniel         | Agr         |      | Morton               |
| Rich, Paul Cobb             | ChE         | 112  | Chicago              |
| Richards, Helen Marie       | S           | 109½ | Joliet               |
| Richards, Lenore            | HSLAS       | 80   | Urbana               |
| Richards, Percie Douglas    | CE          |      | South Pasadena, Cal. |
| Richardson, Charles         | Agr         | 105  | Louisville, Ky.      |
| Richardson, Frank B, Jr.    | Agr         | 86½  | Chenoa               |
| Richardson, Harvey Russell  | EE          |      | Morristown, N. Y.    |
| Richardson, Juanita Bonnie  | HS Agr (SS) | 59   | Danville             |
| Richart, Frank Erwin        | CE          | 108  | Urbana               |

|                                                                     |          |     |                   |
|---------------------------------------------------------------------|----------|-----|-------------------|
| Richers, Edgar Mathew                                               | RME      |     | Altoona, Pa.      |
| Richey, Friedel Chapin                                              | Agr      | 91½ | Chicago           |
| Richmond, George Kerns                                              | BLA      | 66½ | Prophetstown      |
| Richmond, Warren McLellan                                           | Agr      |     | Geneseo           |
| Richolson, Earl Leroy                                               | Agr      |     | Chicago           |
| Ricks, Juanita May                                                  | Mus      |     | Urbana            |
| Ridge, Frances Marion                                               | S        |     | Champaign         |
| Riegeman, Alfred Milton                                             | A        |     | Des Moines, Iowa  |
| Riff, David Morris                                                  | CE       | 111 | Chicago           |
| Rigg, Granville Leroy                                               | Agr      | 47½ | Goldengate        |
| Riley, Raymond James                                                | CerE     |     | Terra Cotta       |
| Rimes, Harry Lahue                                                  | BLA      |     | St. Joseph, Mich. |
| Rinaker, Dorothy Sue                                                | HSLAS    | 63  | Springfield       |
| Ripley, Jean Kimberly                                               | Agr      | 96  | Chicago           |
| Rising, Blanche Josephine                                           | LA (SS)  | 71  | Champaign         |
| Ritchey, Royal Wane                                                 | Agr (SS) | 67½ | Urbana            |
| Ritchie, Guy Lester                                                 | Agr      |     | Billet            |
| Ritter, Ferdinand Theodore                                          | EE       | 79  | St. Louis, Mo.    |
| Ritter, John Gilman                                                 | A        | 10  | Chicago           |
| Ritts, Charles Laurence                                             | A        | 75  | Drumright, Okla.  |
| Rives, Nannie Baxter                                                | LA       | 57  | Rockbridge        |
| Roach, Doris Eleanor                                                | LA       |     | Decatur           |
| Roach, George Humphrey, A.B.<br>(San Francisco Theol. Sem.)<br>1897 | Lb       |     | Portland, Ore.    |
| Roane, Theodore                                                     | Ch       |     | Chicago           |
| Robbins, Edward Ellsworth                                           | SS       | 8½  | Warsaw, Ind.      |
| Robbins, Oscar Eugene                                               | Agr      |     | Greenfield        |
| Robbins, Ruth                                                       | HSLAS    | 66  | Congress Park     |
| Roberson, Mary                                                      | SS       | 15½ | Villa Ridge       |
| Robert, Jules Henry                                                 | ME       | 110 | Lacon             |
| Roberts, Erma Dorothy                                               | HSAgr    | 100 | Chicago           |
| Roberts, Harold Higbee                                              | ME       | 92  | White Hall        |
| Roberts, Jean                                                       | LA       |     | Champaign         |
| Roberts, Jerome Gillespie                                           | MnE      |     | Chicago           |
| Roberts, Malcolm Douglas                                            | Agr      |     | New York City     |
| Roberts, Nellie Read, A.B., 1913                                    | Lb       | 10  | Champaign         |
| Roberts, Roland George                                              | A        |     | Oak Park          |
| Robertson, Blanche, Ph.B. (Penn<br>Coll.) 1908                      | Lb       |     | Oskaloosa, Iowa   |
| Robertson, Charles Venable                                          | CE       |     | Carlinville       |
| Robertson, Louis Harry                                              | CE       | 81½ | Blue Island       |
| Robertson, Miriam Selina                                            | HSAgr    |     | Morrison          |
| Robertson, Walter Kempster                                          | BLA      | 1½  | River Forest      |
| Robins, John Quitman, Jr.                                           | Agr      |     | Tupelo, Miss.     |
| Robinson, Albert William                                            | ME       | 37  | Oak Park          |
| Robinson, John Lester                                               | L        |     | Mt. Vernon        |
| Robinson, Robert Johnson                                            | SS       | 27½ | Clifton           |
| Robinson, Warren Isaac                                              | Agr      |     | LaSalle           |
| Robrock, Lawrence Martin                                            | S        | 76  | St. Louis, Mo.    |
| Robor, Minnie                                                       | SS       | 5   | Mt. Vernon        |
| Roche, Leon                                                         | Agr      |     | Olive Branch      |
| Rockey, Paul Thomas                                                 | AE       |     | Freeport          |
| Rockhold, Kenneth Edward                                            | CerE     | 105 | Burlington, Iowa  |
| Roe, Gertrude Alice                                                 | LA       |     | Tuscola           |
| Roe, Hazel Mae                                                      | LA       |     | Tuscola           |
| Roedel, Lawrence John                                               | AE       |     | Spokane, Wash.    |
| Roesner, Hedwig Elizabeth                                           | Mus (SS) | 59½ | Moline            |
| Roessler, William Otto                                              | Agr (SS) | 40½ | Shelbyville       |
| Rogers, Elsie Marie                                                 | HSLAS    |     | Urbana            |
| Rogers, Gardner Spencer                                             | Agr      | 17  | Evanston          |
| Rogers, Harry Barrett                                               | CE       | 74½ | Oak Park          |
| Rogers, Harry Thomas                                                | AE       | 37  | Champaign         |
| Rogers, Henry Sheldon                                               | Agr      |     | Marengo           |
| Rogers, Paul Hansen                                                 | L        |     | Atlanta           |
| Rogers, Russell David                                               | AE       | 37  | Pekin             |
| Rohlfing, Alfred Robert                                             | BLA (SS) | 112 | Groveland         |
| Rohfling, Walter Louis                                              | Agr      | 32  | Groveland         |
| Rohn, Fred Andrew                                                   | AE       | 37  | Chicago           |



|                               |            |     |                         |
|-------------------------------|------------|-----|-------------------------|
| Rohrer, Frank Philip          | LA         | 44  | Gilman                  |
| Roland, Lela Mae              | HS Agr     | 18  | Champaign               |
| Roland, Vern Anton            | AE (SS)    | 112 | Champaign               |
| Rolfe, Amy Lucile, A.B., 1908 | Mus        | 167 | Champaign               |
| Roloff, William Arthur        | AE         |     | Homer                   |
| Roman, Oscar                  | Agr        | 102 | Granite                 |
| Romeiser, Edwin               | Agr        |     | Belleville              |
| Romine, Joseph Fred           | Agr        | 71  | Atwood                  |
| Roos, Edwin George            | A          | 4   | St. Louis, Mo.          |
| Root, Kimball Valentine       | Cer        | 72  | Chicago                 |
| Rooth, Carrie Lee             | SS         | 125 | Joy                     |
| Ropiequet, Wilfred Crouch     | L          |     | Belleville              |
| Roscoe, George Howard         | Agr        |     | Blue Island             |
| Rose, Elsie Coral             | SS         | 3   | Windsor                 |
| Rose, Harold Boone            | ME (SS)    | 69½ | Urbana                  |
| Roseman, Leonor               | LA         |     | Chicago                 |
| Rosenberg, Herbert Bernard    | Agr        | 29  | Granite City            |
| Ross, Glenn Thompson          | BLA        | 116 | Urbana                  |
| Ross, Herbert Emil            | CE         |     | Evanston                |
| Ross, John Carl               | Ch         |     | Cape Town, South Africa |
| Ross, Kenneth Dwight          | BLA        | 41  | Grand Island, Nebr.     |
| Ross, Roy Meneley             | BLA        | 114 | Urbana                  |
| Ross, Thomas Allen            | Agr        | 68½ | Chicago                 |
| Rosset, Louis                 | EE         | 99  | Chicago                 |
| Rothgeb, Jessie Blanche       | HSLAS (SS) | 102 | Wellington              |
| Rotrock, Howard Moore         | CE         | 36  | Chicago                 |
| Rounds, Fred Grafton          | A          | 76  | St. Paul, Minn.         |
| Rourke, Ellen Mary            | SS         | 37½ | Springfield             |
| Rourke, Margaret Elizabeth    | SS         | 11½ | Springfield             |
| Rowe, Charles Baer            | A          |     | Chicago                 |
| Rowe, Enos Marion             | Agr        | 106 | Shoals, Ind.            |
| Rowe, James                   | MnE        |     | Three Rivers, Mich.     |
| Rowland, Floyd Elba           | S          | 115 | Corvallis, Ore.         |
| Roy, Herman Emil              | A          | 38  | Chicago                 |
| Roy, Surya Kanta              | Agr        | 112 | Lucknow, India          |
| Rozanski, Otto                | EE         |     | Taylorville             |
| Ruby, George Benjamin         | ChE        | 70  | Yorkville               |
| Ruckel, John Garland          | Agr (SS)   | 96½ | Springfield             |
| Rue, Orlie                    | ME         | 75  | Mattoon                 |
| Ruedi, Charles Henry          | AE         |     | St. Louis, Mo.          |
| Rueff, Joseph Alvin           | ME         | 36  | Oak Park                |
| Ruehe, Mabel Louise           | Mus        |     | Urbana                  |
| Ruffner, Rachel               | HS Agr     |     | Casey                   |
| Rugg, Earle Underwood         | LA         | 59½ | Fitchburg, Mass.        |
| Rukin, Max                    | BLA        | 55  | Cleveland, Ohio         |
| Rundle, Howard Edward         | EE         | 52  | Iron Mountain, Mich.    |
| Rundle, W B                   | Agr        |     | Clinton                 |
| Rundles, Charles Morton       | LA (SS)    | 44  | Huntertown, Ind.        |
| Rundles, Don Cameron          | Agr sp     | 98½ | Champaign               |
| Rundles, William Lloyd        | Agr (SS)   | 58½ | Huntertown, Ind.        |
| Runneberg, Elton Cromwell     | Agr        |     | Hillside                |
| Runyan, Clarence Edson        | A          | 32  | Creswell, Ore.          |
| Rush, Ira Leon                | A          | 88  | Minot, N. D.            |
| Russett, Jasper Philip        | A          |     | Cedar Rapids, Iowa      |
| Rust, Louis John              | EE         | 37  | Pekin                   |
| Rusy, Ben Franklin            | Agr        | 12  | Chicago                 |
| Rutenber, Frances Marie       | HSLAS      | 69  | Champaign               |
| Ruth, Rowland William         | ME         | 75  | Aurora                  |
| Ruth, Thomas Lenor            | L          | 22  | Champaign               |
| Rutherford, Eugenia Elizabeth | LA         | 91  | Newman                  |
| Rutledge, Burtch Irwin        | S          | 33  | Chatsworth              |
| Ryan, Arthur Cleveland        | CE         |     | Henry                   |
| Ryther, Henry White           | ME (SS)    | 102 | Chicago                 |
| Sackrison, Julius Alvin       | Agr sp     | 70  | Batavia                 |
| Sadler, Lucille               | LA         |     | Grove City              |
| Saffell, Gladys Deforest      | Mus        | 20  | Urbana                  |
| Sailor, Ira Carl              | Agr        | 59  | Cissna Park             |
| Salazar, Jose Urbano          | Agr (SS)   | 106 | Chihuahua, Mexico       |
| Salisbury, George Washington  | Agr        | 99  | Astoria                 |

|                                                   |         |      |                  |
|---------------------------------------------------|---------|------|------------------|
| Sallee, Gordon Francis                            | ME      | 33   | Litchfield       |
| Saltzman, Herbert Sollie                          | AE      |      | Chicago          |
| Samuels, Thomas Walter, A.B.,<br>1909; A.M., 1912 | L       | 58   | Carrollton       |
| Samuelson, Raphael Adelford                       | EE      | 64½  | Elgin            |
| Sanders, George Edward                            | Md      | 59½  | Champaign        |
| Sanders, Laura Marie                              | HSLAS   | 122  | Champaign        |
| Sanders, Ralph Lloyd                              | CE      | 103  | Glasford         |
| Sandford, Harriet Adelaide                        | HSLAS   | 32   | Danville         |
| Sanford, Miles Blinn                              | LA      |      | La Grange        |
| Sarett, Lew R, A.B. (Beloit Coll.)<br>1911        | L       | 3    | Chicago          |
| Savage, Clifford Martin                           | AE      | 28   | Anderson, Ind.   |
| Savage, Lillian Waters                            | LA      | 104  | Belleville       |
| Savage, Marie                                     | LA      | 71   | Urbana           |
| Savage, Mary Franklin                             | LA      |      | Belleville       |
| Savage, William Chauncey                          | Agr     |      | St. Louis, Mo.   |
| Savage, William Elliott                           | Md      | 28½  | Belleville       |
| Saville, Edward William                           | Agr     | 21   | Canton           |
| Sawers, B Helen                                   | LA      |      | Chicago          |
| Sawyer, Henry Greeley                             | ChE     | 89   | Monmouth         |
| Sawyer, Margaret                                  | HSAgr   | 95   | Norborne, Mo.    |
| Scales, Walter Howard                             | AE      | 112  | Ft. Worth, Texas |
| Schaarman, Emil Ferdinand                         | LA (SS) | 101  | Edgington        |
| Schadt, Mabel Eva                                 | HSLAS   | 104½ | Leesburg, Ind.   |
| Schaefer, Edgar Frederick                         | LA      | 33   | Quincy           |
| Schaefer, Edythe Adeline                          | SS      | 6    | Shumway          |
| Schaffer, Otto George                             | Agr     | 91   | Lake Forest      |
| Schalck, Michael Andrew                           | Agr     |      | Butler, Ky.      |
| Schaller, Emma Eugenie                            | HSLAS   | 107  | Mendota          |
| Schaller, Gilbert Simon                           | ME      | 37   | Mendota          |
| Schaulin, George Marvin                           | Cer     | 62   | Mazon            |
| Schecht, Max                                      | LA      |      | New York City    |
| Schecter, Ralph Wendell                           | LA      | 32½  | Danville         |
| Scheele, Donald Charles                           | ME      | 68   | Elgin            |
| Schenck, Lawrence                                 | EE      |      | LeRoy, Kans.     |
| Schenck, Ralph Edwin                              | A       | 50   | Urbana           |
| Schertz, Louie John                               | Agr sp  |      | Deer Creek       |
| Schetnitz, Hymen                                  | BLA     | 74½  | Chicago          |
| Schickedanz, Louis Herman                         | ME      | 35   | Chenoa           |
| Schiesswohl, Philip George                        | BLA     | 63   | Chicago          |
| Schiesswohl, Ralph Louis                          | BLA     | 41   | Chicago          |
| Schilling, Dale Ridgway                           | A       |      | Kansas City, Mo. |
| Schlader, Edward Holmes                           | REE     | 28   | Oak Park         |
| Schleifer, Ferdinand                              | Agr     |      | Nashville        |
| Schlemm, Robert Max                               | ME      |      | Chicago          |
| Schlueter, Waldo Lauff                            | ME      |      | East St. Louis   |
| Schmidt, Karl William                             | AE      | 63½  | Kansas City, Mo. |
| Schmitz, Joseph Oscar                             | A       |      | St. Joseph, Mo.  |
| Schneider, Arthur Charles                         | CE      | 18   | Galena           |
| Schneider, Daniel Charles                         | ME      | 84   | Nokomis          |
| Schobinger, Eugene                                | MSE     | 74   | Morgan Park      |
| Schock, Arthur John                               | EE      |      | Tower Hill       |
| Schoembs, Frank Alvin                             | LA      |      | Cairo            |
| Scholl, Louis A, Jr.                              | SS      |      | Pittsburgh, Pa.  |
| Scholl, Raymond Stanley                           | Agr     | 32   | Pittsburgh, Pa.  |
| Schoondermark, Cornelius                          | Agr     |      | Chicago          |
| Schreier, Emil Paul                               | A       | 119  | Verdigris, Nebr. |
| Schreiner, Harold Cordes                          | EE      |      | River Forest     |
| Schriner, Emma Ellen                              | SS      | 16½  | Peoria           |
| Schroder, William Bladel                          | L       |      | Rock Island      |
| Schroeder, Alma Amanda                            | LA      |      | El Paso          |
| Schroeder, Glenn Wilson                           | Agr     | 106½ | Joliet           |
| Schroeder, Lydia Marie                            | LA      |      | El Paso          |
| Schroeder, Paul Louis                             | Md      |      | Nashville        |
| Schroeppel, Harold Henry                          | EE      |      | Mt. Carroll      |
| Schueler, Herbert                                 | ME (SS) | 27   | La Salle         |
| Schuette, Otto Theodore                           | Agr     | 47½  | Chicago          |
| Schuh, Niles Fraser                               | BLA     |      | Cairo            |



|                                                      |          |      |                   |
|------------------------------------------------------|----------|------|-------------------|
| Schuler, Don Buel                                    | A        | 129  | Wichita, Kans.    |
| Schuler, Kate                                        | SS       | 6½   | Villa Ridge       |
| Schultz, Carl Emil                                   | Md       |      | Oak Park          |
| Schulz, Ernest Rudolph                               | Agr sp   | 6    | Daldingen, Russia |
| Schulz, John A                                       | ChE      |      | Elmwood           |
| Schumacher, Dixie Howard                             | HSLAS    |      | Rockport, Ind.    |
| Schurecht, Harry George                              | Cer      | 100  | Chicago           |
| Schutte, William George                              | ME       | 33   | Marseilles        |
| Schwartz, Louise Fenimore, A.B.<br>(Knox Coll.) 1907 | Lb       | 33   | Knoxville         |
| Schwartz, Raymond Robert                             | Agr sp   |      | Chicago           |
| Schwartz, Rudolph Alfred                             | Agr      | 22   | Cairo             |
| Schwarzkopf, Horace Valentine                        | Agr      | 54   | Chicago           |
| Schwing, Edward Albert                               | Agr      | 82   | Peoria            |
| Scott, Bertha Mary                                   | Mus      |      | Berwyn            |
| Scott, Ernest Somers                                 | EE       | 109  | Oak Park          |
| Scott, Gerald Russell                                | Agr      |      | Chicago           |
| Scott, Lincoln Bain                                  | Agr      | 52   | Melrose, Mass.    |
| Scott, Neva Augusta                                  | LA       | 50   | Urbana            |
| Scott, Ralph A                                       | Agr      |      | Rock Falls        |
| Scott, Robert Ashmore                                | Agr (SS) | 41   | Paris             |
| Scott, Shirley Edward                                | LA (SS)  | 49½  | Champaign         |
| Scroggin, Mildred Alice                              | LA       | 64   | Mt. Pulaski       |
| Scudder, Winthrop Davis                              | Agr      |      | Osterville, Mass. |
| Seaman, Clayton                                      | BLA      |      | Oak Park          |
| Seaman, Katherine                                    | LA       | 63   | Oak Park          |
| Searing, John Henry                                  | L        | 23   | Carbondale        |
| Searles, Donald Kenneth                              | LA       | 33   | La Grange         |
| Sears, Ogal Hesse                                    | Agr      | 112  | Oblong            |
| Sears, Rose Roberts, A.B., 1909                      | Lb       | 32   | Chicago           |
| Secor, Edmund Clay                                   | Agr      | 96   | Carrollton        |
| Sedgwick, James Howard                               | Agr      |      | Peoria            |
| Seed, Harry Raymond                                  | Agr      | 27   | Billet            |
| Seed, Oscar Vern                                     | L        | 24   | Lawrenceville     |
| Seegar, Nellie S                                     | SS       | 9½   | Jacksonville      |
| Seeglitz, Albert Henry                               | ME       |      | Chicago           |
| Seeley, Esther Beulah                                | SS       | 132½ | Normal            |
| Seeley, Robert Mayer                                 | BLA      | 31   | Freeport          |
| Seidel, Charles Gault                                | LA       |      | Elgin             |
| Seidenberg, Nathan Cook                              | LA       | 59   | Peoria            |
| Seifried, Arthur George                              | Agr      | 38   | Chicago           |
| Seiler, Lyman Eston                                  | Agr sp   |      | Urbana            |
| Sekine, Sentaro, B.S., 1913                          | LA       | 162½ | Kodamagari, Japan |
| Sellards, William Heine                              | Agr      | 33   | Champaign         |
| Sellner, Edna                                        | Ch       |      | Quincy            |
| Sells, Simeon Wells Johnson                          | LA       | 13   | Chicago           |
| Selsam, Beulah E                                     | SS       | 9    | Hagerstown, Md.   |
| Semple, Arthur Truman                                | Agr      | 34½  | Riverton          |
| Senneff, George Freeman                              | Agr      | 65½  | Rock Falls        |
| Sense, William Joseph                                | A        | 79½  | Watseka           |
| Sewell, Sidney Isaac                                 | CerE     | 126  | Belvidere         |
| Sexauer, Mae Magdalen                                | LA       | 22   | Belvidere         |
| Seyster, Ernest Wilford                              | S        | 59½  | Kempton           |
| Shaffer, Charles Franklin                            | EE       | 56   | Quincy            |
| Shaffer, Randolph Clinton                            | REE      |      | Plymouth          |
| Shaffer, Rolla Flemming                              | Agr      | 32½  | Jeffersonville    |
| Shallberg, Rudolph Earl                              | LA       |      | Moline            |
| Shambo, Guy Peter                                    | EE (SS)  | 71   | Aurora            |
| Shank, Henry Stanley                                 | Agr      |      | Chicago           |
| Shapland, Earl Page                                  | ME       | 133  | Saunemin          |
| Sharer, Donald David                                 | MSE      |      | Decatur           |
| Sharp, Bertha Lee                                    | LA (SS)  | 143½ | Urbana            |
| Sharp, James C                                       | Agr      |      | Urbana            |
| Sharp, Mildred                                       | SS       |      | Mattoon           |
| Shaw, Edward Byer                                    | Md       | 32   | Olney             |
| Shaw, Ellis Marsh                                    | AE       | 100  | Rockford          |
| Shaw, Frederick Wood                                 | CE       |      | Chicago           |
| Shaw, Sidney                                         | S        |      | Petersburg        |
| Shawl, Ray Iris                                      | Agr (SS) | 68½  | Peoria            |

|                                                    |          |      |                    |
|----------------------------------------------------|----------|------|--------------------|
| Shay, Mary Lucille                                 | LA       |      | Decatur            |
| Shearer, Clinton Philip                            | Agr      |      | Auburn             |
| Shedden, Donald Boyd                               | Agr      | 31½  | Elgin              |
| Sheets, Frank Thomas                               | MSE      | 112  | Palmyra, Mo.       |
| Sheetz, A Vernon                                   | BLA      | 34½  | Freeport           |
| Shelby, Edwin, Jr.                                 | CE       | 37   | New Orleans, La.   |
| Shelden, Walter William                            | BLA      | 39   | Winnebago          |
| Sheldon, Henry Kellogg                             | EE       | 74   | Sharpsburg         |
| Sheldon, Warren Maxwell                            | Agr      | 102½ | Sharpsburg         |
| Shelley, Earl Frank                                | CE       |      | Mt. Vernon         |
| Shelton, Wilma Loy                                 | SS       | 104  | Terre Haute, Ind.  |
| Shen, Tszeyin Chieh                                | LA       |      | Canton, China      |
| Sheng, Mung-chin                                   | ChE      |      | Kiangsi, China     |
| Shepard, Anna Lucile, A.B.<br>(Univ. of Iowa) 1910 | Mus      |      | Muscantine, Iowa   |
| Sheppard, Charles Howard                           | CE       |      | Edwardsville       |
| Sheppard, James Douglass                           | EE       | 131  | Peoria             |
| Sherman, Carl Lee                                  | CE       | 75   | Sandoval           |
| Shields, Eugene Clifton                            | SS       | 35   | Summum             |
| Shields, Harold Johnson                            | MnE (SS) | 41   | Sullivan, Ind.     |
| Shields, John Erwin                                | Agr      | 34   | Lewistown          |
| Shields, John P                                    | AE       | 74   | Washington, Iowa   |
| Shields, Mrs. Mabelle Hughes                       | SS       | 7    | Summum             |
| Shing, Chi Ting                                    | RCE      |      | Changshe, China    |
| Shipman, William Davis                             | CE       | 102  | Seattle, Wash.     |
| Shiveley, Walter Scott                             | ME       | 75   | Chicago            |
| Shobe, Frank Dilling                               | L        | 48   | Urbana             |
| Shoemaker, Fred Glen                               | EE       | 121  | Abingdon           |
| Shohmaker, James Wright                            | LA       |      | Charleston         |
| Shomaker, Samuel Jasper                            | SS       | 48   | Iuka               |
| Shonts, Turrill Dean                               | BLA      | 54   | South Bend, Ind.   |
| Shook, Charles Harman                              | SS       | 61   | Champaign          |
| Shook, Charles Wheeler                             | LA       | 76   | W. LaFayette, Ind. |
| Shott, Ruth Elma                                   | HSLAS    |      | Urbana             |
| Shriner, Helen Elizabeth                           | HSAgr    |      | Champaign          |
| Shroyer, Malcolm Edward                            | LA       |      | Pontiac            |
| Shuck, Fred Vinton                                 | BLA (SS) | 20½  | Urbana             |
| Shuck, Helen                                       | LA       | 32   | Urbana             |
| Shum, Nim Chi                                      | Ch (SS)  | 105  | Canton, China      |
| Shurtleff, Howard Freeman                          | CE       | 20   | Wilmette           |
| Shurtleff, Raymond Shryock                         | Md       |      | Cuba               |
| Siebens, Arthur Robert                             | Agr      | 61½  | Minonk             |
| Siegfried, Edward Olaf                             | AE       | 71   | Chicago            |
| Siegmund, Humphreys Oliver                         | EE       | 6    | St. Louis, Mo.     |
| Siemens, Webb Mellin                               | A        | 42   | St. Joseph, Mo.    |
| Sievert, Carl William John                         | SS       | 130½ | Blue Island        |
| Sigerson, Jeanette May                             | HSLAS sp |      | Urbana             |
| Sigerson, Wilfred Carl                             | BLA (SS) | 98   | Urbana             |
| Signor, Nelle Marie, A.B., 1912                    | Lb       |      | Urbana             |
| Sihler, Charles Harold                             | Md       |      | Litchfield         |
| Silkman, John Mead                                 | MnE      | 78   | Baltimore, Md.     |
| Sill, Leo Lester                                   | Mus      | 18   | Mahomet            |
| Silver, Milton Gans                                | LA       |      | Champaign          |
| Silverman, Isadore                                 | Agr      |      | Chicago            |
| Simison, Ernest Newton                             | Agr sp   | 9½   | Austin             |
| Simmons, Jessie Josephine                          | SS       | 6    | Carthage           |
| Simmons, Orville                                   | SS       | 6    | Texico             |
| Simmons, Theodore Switzer                          | Agr      | 31   | St. Charles        |
| Simms, William Henry, Jr.                          | Agr      | 49   | Gibson City        |
| Simon, Walter Henry                                | A        | 72   | Quincy             |
| Simonich, John Lawrence                            | EE       | 107  | Joliet             |
| Simons, Minnie Jane                                | SS       |      | Rochelle           |
| Simons, Raymond Samuel                             | S        | 92   | Chicago            |
| Simonson, Guy Loraine                              | Ch       | 101½ | Downers Grove      |
| Simpson, Earl Bruce                                | LA       |      | Eldorado           |
| Simpson, Luther Franklin                           | ME       |      | Moweaqua           |
| Simpson, Mary Alice                                | Agr      | 39½  | Evanston           |
| Simpson, Sebastian Solon                           | SS       | 133  | Pana               |
| Simpson, Thomas Moore                              | Agr sp   |      | Alexis             |



|                                                     |          |      |                       |
|-----------------------------------------------------|----------|------|-----------------------|
| Sims, Clarence Edgar                                | ChE      | 69   | Chicago               |
| Sinclair, Bernice                                   | LA       | 63½  | Indianapolis, Ind.    |
| Sinclair, Ovid Eugene                               | EE       |      | Mazon                 |
| Singer, Benjamin                                    | LA       |      | Chicago               |
| Singh, Charnjit                                     | EE       | 37   | Sangrur, India        |
| Sites, Beulah                                       | SS       |      | Mt. Carmel            |
| Sizer, Albert Dann                                  | Agr      | 56½  | Champaign             |
| Skadder, Harvey Frank                               | A        | 95   | Danville              |
| Skemp, Samuel Charles                               | Agr (SS) | 83   | Maywood               |
| Skinner, Glenn Seymour                              | Ch       |      | Cherokee, Kans.       |
| Skinner, John Knox                                  | S (SS)   | 122½ | Salem                 |
| Skinner, Mrs. Winnifred Voorhees                    | SS       | 16   | Chicago               |
| Sladek, Edward Frank                                | CerE     | 27   | Chicago               |
| Slater, Frank Clifton                               | L        |      | Cherry Valley         |
| Slater, Maynard Elmer                               | Agr      | 66   | Belvidere             |
| Slayton, Willis Francis                             | Agr      | 30½  | Tulsa, Okla.          |
| Sleezer, Corell                                     | EE       |      | Yorkville             |
| Sleezer, Lucile Burlew                              | LA       |      | Yorkville             |
| Sloan, Amelia Marie                                 | HS Agr   |      | Urbana                |
| Sloan, Fred Lewis                                   | Agr sp   |      | Ray                   |
| Small, Clarence W                                   | Md       |      | Waynetown, Ind.       |
| Smalley, Arthur Louis                               | BLA      |      | Litchfield            |
| Smallwood, J P                                      | BLA      |      | Decatur               |
| Smart, Chauncey Harrison                            | Agr      |      | Hinsdale              |
| Smart, Robert Leroy                                 | CE       | 102½ | Davenport, Iowa       |
| Smejkal, Frank John                                 | Agr      | 112  | Chicago               |
| Smidl, Edward                                       | AE       | 52   | Chicago               |
| Smiley, Lionel David                                | EE       | 36   | Woodstock             |
| Smith, Mrs. Adelle Catherine                        | Mus sp   |      | Richmond Beach, Wash. |
| Smith, Bryce Dumond                                 | Agr sp   | 28   | Earlville             |
| Smith, Charles Roger                                | Agr      | 100½ | Harterville, Ohio     |
| Smith, Clarence Walter                              | LA       |      | Decatur               |
| Smith, Donald Jenks                                 | EE       | 108  | Chicago               |
| Smith, Earl Loran                                   | BLA      |      | Clayton               |
| Smith, Edwin Allan                                  | EE       | 37   | Chicago               |
| Smith, Elizabeth Morree                             | Mus      | 66   | Urbana                |
| Smith, Elsie Webb                                   | SS       | 12½  | Benton                |
| Smith, Eugene Charles                               | CE       | 51   | Chicago               |
| Smith, Florence Emily                               | HSLAS    |      | Champaign             |
| Smith, George Sanborn                               | LA       |      | Chicago               |
| Smith, George Walter                                | AE (SS)  | 94   | Wilber, Nebr.         |
| Smith, Gladys May                                   | LA       | 81   | Champaign             |
| Smith, Glenn Collins                                | Agr      |      | Greenfield            |
| Smith, Grace Binford, Ph.B.<br>(Lincoln Coll.) 1912 | Lb       |      | Kokomo, Ind.          |
| Smith, Groves Blake                                 | SS       | 88   | Godfrey               |
| Smith, Harry Curtis                                 | A        | 11   | Monroe, Iowa          |
| Smith, Hawley Lester                                | MnE      |      | Clifton               |
| Smith, Herbert Charles                              | AE       | 6    | St. Louis, Mo.        |
| Smith, Herbert Edgar                                | MSE      | 51   | Cobourg, Ont., Can.   |
| Smith, Hubert Argo                                  | A        | 29   | Urbana                |
| Smith, Irene Fern                                   | Ch       | 36   | Red Bud               |
| Smith, John Wesley                                  | ME       |      | Geneseo               |
| Smith, Julian Francis                               | Ch       | 31   | Champaign             |
| Smith, Lawrence                                     | BLA      |      | Whiting, Ind.         |
| Smith, Lawrence Lemont                              | Agr      |      | Washington            |
| Smith, Leoti Vannie                                 | LA       | 62   | Champaign             |
| Smith, Leslie G                                     | Agr      |      | Geneseo               |
| Smith, Luella Leillia                               | Mus      |      | Byron                 |
| Smith, Marquis Joseph                               | Agr      | 108  | Burdett, N. Y.        |
| Smith, Mary Elizabeth                               | SS       |      | St. Joseph            |
| Smith, Mary Parnell                                 | HS Agr   | 13   | Cuba                  |
| Smith, Merle LeRoy                                  | BLA (SS) | 21½  | Freeport              |
| Smith, Naomi Belle                                  | Mus      |      | Clinton, Ind.         |
| Smith, Paul Miller                                  | Agr      | 79   | Lincoln               |
| Smith, Philip Overton                               | Ch (SS)  | 6    | Danville              |
| Smith, Reuel Lhamon                                 | ME       | 110  | Champaign             |
| Smith, Robert, Jr.                                  | ME       | 128  | Chicago               |

|                                                         |         |      |                    |
|---------------------------------------------------------|---------|------|--------------------|
| Smith, Robert Harold                                    | MSE     |      | Wauwatosa, Wis.    |
| Smith, Royal Lee                                        | Cer     | 39   | Detroit, Mich.     |
| Smith, Samuel Theodore                                  | BLA     | 69   | Conway, Ark.       |
| Smith, Sidney Hillard                                   | BLA     |      | Freeport           |
| Smith, Stanley Christopher                              | BLA     | 98   | Clayton            |
| Smith, Stewart Tracey                                   | AE      | 74   | Rose Hill, Iowa    |
| Smith, Stuart Luthy                                     | Md      | 31   | Pittsfield         |
| Smith, Wilson Marshall                                  | LA      | 76   | Waverly            |
| Smithson, Albert Thornton                               | A       | 104½ | Lacon              |
| Smohl, Belle                                            | LA      |      | Vandalia           |
| Smoot, Elizabeth Ellice                                 | Mus     | 79   | Fithian            |
| Smoot, William Everett                                  | Agr     |      | Petersburg         |
| Snare, Natalie Vane                                     | SS      |      | Santa Rosa, Cal.   |
| Snoddy, Raymond Leffel                                  | LA      | 46   | Danville           |
| Snook, John Donald                                      | ChE     | 74   | Wellington         |
| Snyder, Glenn                                           | Agr     | 28½  | Billet             |
| Snyder, Logan Abraham                                   | Agr     | 92   | Kankakee           |
| Soderberg, Harry                                        | AE      |      | Florence, Wis.     |
| Spalding, Louis Montrose                                | Agr     | 3    | McNabb             |
| Spalding, Marjorie Mae                                  | Mus     |      | Champaign          |
| Spalding, Russell Albert                                | SS      | 91½  | Champaign          |
| Spear, Elsie Travilla                                   | HSLAS   | 100  | Rock Falls         |
| Spear, Harry George                                     | SS      | 17   | Rankin             |
| Spence, Frederick Milton                                | EE      | 99   | Elmwood            |
| Spencer, Cynthia Eugenia                                | LA      |      | Champaign          |
| Spencer, Mary Ethel                                     | LA      | 48   | Champaign          |
| Spencer, Victor Elwin                                   | Agr     | 66½  | Lockport           |
| Sperry, Donald Draper                                   | LA      |      | Oak Park           |
| Sperry, Holland Robert                                  | SS      | 7    | Galesburg          |
| Sporlein, Louis Wolfgang                                | AE      | 105  | Chicago            |
| Sprague, Cena Lavina, A.B.<br>(Univ. North Dakota) 1913 | Lb      |      | Grafton, N. D.     |
| Sprague, Harold Greene                                  | A       | 105  | Des Moines, Iowa   |
| Sprague, Mabel                                          | SS      |      | Chicago            |
| Spraker, Glen Allen                                     | AE      | 23   | Kokomo, Ind.       |
| Sproull, Raymond A                                      | S       |      | Mazon              |
| Squibb, Reginald Gardiner                               | ChE     |      | Chicago            |
| Squier, George Kasson                                   | ME      | 30   | Rockford           |
| Squier, Leon Walter                                     | ME      | 95   | Rockford           |
| Stacheli, Otto                                          | ChE     | 32   | Chicago            |
| Stafford, Herbert Stanley Levin                         | MnE     | 103  | Hubbard Woods      |
| Stager, Frank Mickle                                    | EE      |      | Sterling           |
| Stahl, Myrtle Lois                                      | LA (SS) | 99½  | Victoria           |
| Stahl, Walter Andrew                                    | ME      | 46   | Chicago            |
| Stall, Bessie Lovemma                                   | SS      | 5½   | Champaign          |
| Stambaugh, Fred Minton                                  | L sp    | 55   | Deland             |
| Stangel, Victor                                         | LA      |      | Champaign          |
| Stanley, Leon                                           | Agr     |      | Downers Grove      |
| Stanley, Walter                                         | LA      |      | Anderson, Ind.     |
| Stansell, Harry Stout                                   | Agr     |      | Magnolia           |
| Stark, John Edwin                                       | SS      | 9    | Urbana             |
| Starkey, Albert Lyle                                    | SS      | 46½  | Pesotum            |
| Starkey, Clara                                          | SS      | 7    | Danville           |
| Starkey, Faye                                           | SS      | 7½   | Danville           |
| Starkey, Lawrence Vincent                               | Agr     | 100½ | Ravenswood, W. Va. |
| Starnes, Verner                                         | Ch      | 31   | Carlisle, Ind.     |
| Starr, Bernice Fallis                                   | LA      | 100  | Decatur            |
| Starr, Ruth                                             | LA      |      | Charles City, Iowa |
| States, Bertha Grace                                    | LA sp   |      | Cornell            |
| Stearns, Carl Garner                                    | L       |      | Rankin             |
| Stearns, Winnifred Sara                                 | SS      | 6½   | Champaign          |
| Stebbins, John Marcus                                   | Agr     | 1    | Chicago            |
| Stebbins, Selden Lewis                                  | EE      | 104½ | Chicago            |
| Stedman, Jeannette Kimberlin,<br>B.Mus., 1913           | Mus     |      | Champaign          |
| Steele, Lottie Emily                                    | LA      | 131  | Galesburg          |
| Steele, Ray C                                           | Agr     |      | Robinson           |
| Steif, Benjamin Leo                                     | A       | 35   | Chicago            |
| Steinmayer, Alwin Gustave                               | EE      | 37   | LaSalle            |



|                                         |               |      |                       |
|-----------------------------------------|---------------|------|-----------------------|
| Steinmayer, Reinhard A J                | <i>Cer</i>    | 28   | LaSalle               |
| Steinmetz, Ferdinand Henry              | <i>Agr sp</i> |      | Edwardsville          |
| Steinmeyer, Herbert August              | <i>BLA</i>    | 78   | St. Louis, Mo.        |
| Stene, Ole                              | <i>ChE</i>    | 28½  | Elgin                 |
| Stephens, Earl Thomas                   | <i>Agr</i>    |      | Champaign             |
| Stephens, Ethel Gertrude                | <i>SS</i>     | 91½  | Murphysboro           |
| Stephens, Roger Lewis                   | <i>L</i>      | 68   | Robinson              |
| Stephenson, Edward                      | <i>S</i>      |      | Michigan City, Ind.   |
| Stephenson, Hubert Vincenz              | <i>CE</i>     | 108  | Woodlawn              |
| Stephenson, Marvin Schutte              | <i>A</i>      |      | Green Bay, Wis.       |
| Stephenson, Walter Estep                | <i>RME</i>    | 60½  | Peoria                |
| Sterenber, Bert Ludens                  | <i>Agr</i>    | 66   | Fulton                |
| Sterling, Frank Hugo                    | <i>Agr sp</i> |      | Bloomington           |
| Sterling, George Edward                 | <i>AE</i>     | 30   | Manitowoc, Wis.       |
| Stern, Jay Lavenson                     | <i>Agr</i>    | 65   | E. Las Vegas, N. Mex. |
| Steuart, Raymond John                   | <i>S</i>      |      | Harvey                |
| Stevens, Alexander Henry                | <i>CE</i>     | 31   | Chicago               |
| Stevens, Edith Hasseltine               | <i>HSAgr.</i> |      | St. Louis, Mo.        |
| Stevens, Helen Gordon                   | <i>LA</i>     |      | St. Louis, Mo.        |
| Stevens, Herbert Norman                 | <i>LA</i>     |      | Paxton                |
| Stevens, Raymond Monroe                 | <i>A</i>      | 127  | Syracuse, N. Y.       |
| Stevens, Richard William                | <i>Agr</i>    | 56   | Joliet                |
| Stevens, Sabra Elizabeth,<br>A.B., 1906 | <i>Lb</i>     | 44   | Mahomet               |
| Stevens, Vernon Thompson                | <i>LA</i>     | 81   | Corpus Christi, Tex.  |
| Stevens, William Corley                 | <i>EE</i>     | 56   | Urbana                |
| Stevens, Wentworth Holt                 | <i>Agr</i>    | 96½  | Urbana                |
| Stevenson, Ailsie Miller                | <i>HSAgr</i>  |      | Peoria                |
| Stevenson, Augustus George              | <i>Md</i>     | 56   | Harvey                |
| Stevenson, Colin Ayers                  | <i>ME</i>     | 93½  | Chicago               |
| Stevenson, Dorothy                      | <i>HSAgr</i>  |      | Urbana                |
| Stevenson, Edward Hiel                  | <i>Agr</i>    |      | Elvaston              |
| Stever, Mildred Pearl                   | <i>HSAgr</i>  | 24   | Henry                 |
| Stewart, Charles William                | <i>EE</i>     | 106  | Jamestown, N. Y.      |
| Stewart, Earle Henry                    | <i>RME</i>    | 74   | St. Louis, Mo.        |
| Stewart, Frank                          | <i>S</i>      |      | Champaign             |
| Stewart, Kenneth Mason                  | <i>Agr sp</i> |      | Chicago               |
| Stice, Kenneth Seymour                  | <i>Cer</i>    | 44   | Urbana                |
| Stickler, Charles Arthur                | <i>Agr</i>    |      | Canton                |
| Stickler, John Harrison                 | <i>Cer</i>    | 15½  | Canton                |
| Stiles, LeRoy Christie                  | <i>BLA</i>    |      | Oak Park              |
| Stillwell, Gennieve Maud                | <i>HSAgr</i>  |      | Urbana                |
| Stillwell, Helen                        | <i>LA</i>     |      | Urbana                |
| Stiegemeier, Gustav F W                 | <i>SS</i>     |      | Champaign             |
| Stiff, Ethel                            | <i>SS</i>     | 8    | Harrisburg            |
| Stinson, Ira S                          | <i>MSE</i>    | 72   | Champaign             |
| Stinson, Lavinia Shriver                | <i>HSLAS</i>  | 103  | Macomb                |
| Stinson, Rita                           | <i>HSAgr</i>  | 25½  | Champaign             |
| Stipp, Blanche                          | <i>Mus</i>    | 73   | Champaign             |
| Stirton, James Crear                    | <i>CE</i>     | 40   | Chicago               |
| Stitt, Raymond DeVries                  | <i>EE</i>     | 106  | Morgan Park           |
| Stockdale, Thomas Elmer                 | <i>EE</i>     |      | Chicago               |
| Stocker, Harry Frederick                | <i>CE</i>     | 36   | Highland              |
| Stockfleth, Berger                      | <i>EE</i>     | 26½  | Chicago               |
| Stocks, Mary Belle                      | <i>HSAgr</i>  | 43   | Garden City, Kans.    |
| Stoddard, George Wellington             | <i>CE</i>     |      | Milwaukee, Wis.       |
| Stoffell, Clarence Milton               | <i>CE</i>     |      | St. Louis, Mo.        |
| Stokes, Louis O'Connor                  | <i>Cer</i>    | 22   | Anna                  |
| Stone, Albert Getten                    | <i>AE</i>     | 42   | Chicago               |
| Stone, Tom Candy                        | <i>Agr</i>    | 102½ | Stonington            |
| Stopp, Gerald Darfield                  | <i>LA</i>     | 69   | Plainfield            |
| Stouffer, Ernest Lawrence               | <i>A</i>      |      | Champaign             |
| Stout, Earl Boyd                        | <i>ME</i>     | 75   | Freeport              |
| Stoutzenberg, Florence Thomas           | <i>HSAgr</i>  | 30   | Greenville            |
| Strang, Robert Leon                     | <i>Agr</i>    | 66   | Antioch               |
| Stratton, Bernice Elizabeth             | <i>HSLAS</i>  | 19   | Chicago               |
| Stratton, Grace Bruce                   | <i>LA</i>     | 31   | Chattanooga, Tenn.    |
| Straw, Walter Addison                   | <i>Ch</i>     | 120  | Wheaton               |
| Streed, Elsie Judith                    | <i>HSLAS</i>  | 95½  | Waukegan              |

|                                                         |         |      |                    |
|---------------------------------------------------------|---------|------|--------------------|
| Streeter, Harrison John                                 | L       |      | Chicago            |
| Streff, Harold Peter                                    | AE      | 31   | Chicago            |
| Strickland, Ray Malcolm                                 | Agr     | 45   | Urbana             |
| Stringer, Joseph Kenneth                                | S       |      | Dubuque, Iowa      |
| Stroheker, Frank Sewall                                 | LA      | 107½ | Barry              |
| Strong, Arthur Crist                                    | L       | 58   | Urbana             |
| Strong, Charles Howard                                  | BLA     | 46   | Earlville          |
| Strong, Harry Danford                                   | Agr     | 98   | Keithsburg         |
| Strong, Robert Ambrose                                  | S (SS)  | 77   | Champaign          |
| Strong, Truman Jefferson                                | A       | 33½  | Spokane, Wash.     |
| Strong, William Augustus                                | S       | 105  | Joliet             |
| Stubblefield, Buford Matthews                           | Ch (SS) | 67   | Bloomington        |
| Stuit, Nelson                                           | REE     | 4½   | Chicago            |
| Stumpf, Elmer Henry                                     | BLA     | 25   | Chicago            |
| Suffern, Emmette Palmer                                 | BLA     | 21   | Atwood             |
| Sullivan, Ethel Pierce                                  | Mus sp  |      | Hays, Kans.        |
| Sullivan, Nicholas Cyril                                | CerE    | 49   | Chicago            |
| Summers, Abel Ross                                      | EE      | 79½  | Des Moines, Iowa   |
| Summers, Henry Elmer                                    | Agr     | 42   | Opdyke             |
| Sundell, Dean Harold                                    | BLA     | 23   | Mason City, Iowa   |
| Sundell, Roy Dehm                                       | ME      | 33   | Oneida             |
| Sunderland, Emily Kingman                               | HSLAS   | 108½ | Delavan            |
| Sunny, Arthur Edward                                    | LA sp   |      | Chicago            |
| Suryieh, Izzet Basili                                   | Agr     | 125  | Dumiat, Egypt      |
| Sutcliffe, Dorothy                                      | LA      |      | Urbana             |
| Sutcliffe, Marjorie                                     | HSLAS   |      | Urbana             |
| Suter, Earl Ray                                         | EE      | 108  | Golden             |
| Sutherland, Harold Hoyle                                | BLA     |      | McNabb             |
| Sutherland, Wilbor Mills                                | Agr     | 33   | McNabb             |
| Suto, Ko                                                | Ch      | 18   | Niitsu City, Japan |
| Sutton, Frank Howard                                    | BLA     | 26   | Chicago            |
| Sutton, William Henry                                   | S       |      | Washington, D. C.  |
| Swaim, Donald Tyler                                     | BLA     |      | Danville           |
| Swam, Harry Clifford                                    | Agr     |      | Clinton            |
| Swank, Edith Ann                                        | HSLAS   | 58   | Fort Wayne, Ind.   |
| Swanson, Claude Magnus                                  | L       | 60   | Ludlow             |
| Swanson, Frances Eleanor                                | LA      | 26   | Urbana             |
| Swanson, Frederick Curtis                               | LA      | 116  | Urbana             |
| Swanson, Norvid Raymond                                 | Agr     | 33   | St. Charles        |
| Swanson, Ralph Arthur                                   | Cer     | 16   | Streator           |
| Swanson, William August                                 | ME      | 26   | Chicago            |
| Swartwout, Edgar Chessman                               | Agr     | 33   | Elgin              |
| Swartz, Fay Wood                                        | Mus     |      | Urbana             |
| Swartz, Leon Frank                                      | Agr     | 50   | Urbana             |
| Swearingen, Lellia Fern                                 | LA sp   |      | Champaign          |
| Swenny, Perry Jerome                                    | EE      | 77   | Caledonia          |
| Swenson, Carl Elmer                                     | CE      | 14   | Chicago            |
| Swenson, William Arthur, A.B.<br>(Augustana Coll.) 1912 | SS      | 7    | Gladstone, Mich.   |
| Swett, Leslie Wells                                     | MnE     | 125½ | Blue Island        |
| Swett, Lewis Wentworth                                  | EE      | 42   | Springfield        |
| Swick, Curvella H                                       | LA sp   |      | Galton             |
| Swick, Mary Ethel                                       | LA      | 63   | Urbana             |
| Swick, Nellie May                                       | LA      | 27   | Urbana             |
| Swigart, Alta Caroline, A.B., 1910                      | Lb      |      | Champaign          |
| Swigart, Faith Gretchen                                 | LA      |      | Champaign          |
| Swigart, Wanda Beryl                                    | LA      |      | Farmer City        |
| Swigert, Blanche Belle                                  | LA sp   | 15   | Rapatee            |
| Swindler, Rollin Leland                                 | Agr sp  |      | Magnolia           |
| Swits, Marguerite Maud                                  | LA      | 50   | Terre Haute, Ind.  |
| Switzer, Ralph Booth                                    | Agr     |      | Macomb             |
| Switzer, Theodore Ernest                                | L       | 57   | Macomb             |
| Swope, Russell Claude                                   | BLA     | 70   | Kankakee           |
| Sykes, Webster                                          | Agr sp  | 16½  | Baylis             |
| Taggart, Frank, Jr.                                     | Agr     | 94½  | Wooster, Ohio      |
| Taggart, John Findlay                                   | LA      |      | Wooster, Ohio      |
| Takashima, Kentoku                                      | LA sp   |      | Tokio, Japan       |
| Taketa, Shiro                                           | EE      | 59   | Hiroshima, Japan   |
| Talbert, Harold Arthur                                  | BLA     | 68   | Garrett, Ind.      |



|                                                    |           |      |                    |
|----------------------------------------------------|-----------|------|--------------------|
| Taleen, Berthal Wetterlund                         | BLA       |      | Ishpeming, Mich.   |
| Tanner, John Riley                                 | A         | 36   | Springfield        |
| Tanner, Thomas                                     | AE        | 31   | Dwight             |
| Tanton, Glenwood Charles                           | Agr       |      | Washington         |
| Tapping, Charles Hawley                            | A         | 99   | Peoria             |
| Tarnoski, Alexander Stephen                        | AE        | 95   | Chicago            |
| Tarracciano, Alexander Eli                         | EE        | 111½ | Chicago            |
| Tate, James Alfred                                 | Agr (SS)  | 91½  | La Junta, Colo.    |
| Taylor, Arthur Cullen                              | SS        | 10   | Cincinnati, Ohio   |
| Taylor, Charles Bagwell                            | CE        |      | Manistee, Mich.    |
| Taylor, Fay Arbia                                  | SS        |      | Urbana             |
| Taylor, Grace DeEtte                               | HS Agr sp |      | Hopkins, Mo.       |
| Taylor, Heber Charles                              | SS        | 6½   | Salem, Ind.        |
| Taylor, Lillian Catherine                          | HS Agr    | 86½  | Negaunee, Mich.    |
| Taylor, Loren Emerson                              | LA        |      | Danville           |
| Taylor, Lyda Royse                                 | SS        |      | St. Louis, Mo.     |
| Taylor, Margaret                                   | LA (SS)   | 113½ | Chicago            |
| Taylor, Max                                        | LA        |      | Pryor, Okla.       |
| Taylor, Milo Cornelius                             | CE        | 91   | Urbana             |
| Taylor, Townsend John                              | EE        | 26½  | Owensboro, Ky.     |
| Taylor, William Mitchell                           | Agr       | 75   | Champaign          |
| Tear, Henry Raymond                                | EE        | 118½ | Chicago            |
| Teasdale, John Warren                              | A         |      | St. Louis, Mo.     |
| Teeters, Mary Etta                                 | HSLAS     |      | Auburn, Ind.       |
| Teixeira, Emilio Alves                             | MnE       | 30½  | Cassia, Brazil     |
| Tendick, Frank Hulit                               | ChE       | 31   | Canton             |
| Tener, Emilie Randall                              | HSLAS     |      | Cleveland, Ohio    |
| Teng, Kwangtang                                    | LA        | 130  | Canton, China      |
| Terrill, Clarence Thomas                           | L         | 25   | Montavilla, Ore.   |
| Terry, Robert Isaac                                | Agr       | 23   | Indianapolis, Ind. |
| Thal, Olga Elizabeth                               | LA        | 41   | Champaign          |
| Thatcher, DeWitt Wesley                            | Agr       | 59   | St. Charles        |
| Thatcher, Frederick Robert                         | EE        |      | Elgin              |
| Thiele, Ross Henry                                 | A         | 7    | Ramsey             |
| Thomas, Abner Royce                                | Agr       | 31½  | Big Rock           |
| Thomas, Arthur Bruce                               | Md        |      | Lovejoy            |
| Thomas, Charles Frederick                          | Md        | 30   | Argenta            |
| Thomas, Clair Joel                                 | Agr (SS)  | 40   | LaHarpe            |
| Thomas, Emil Warren                                | ME        | 52   | Woodstock          |
| Thomas, Glen Herbert                               | A         | 26   | Waterville, Kans.  |
| Thomas, James William                              | LA        |      | Anna               |
| Thomas, Joe Lee, A.B. (Lake<br>Forrest Coll.) 1912 | Agr       |      | Charleston, W. Va. |
| Thomas, John Mifflin                               | ME        | 112  | Vincennes, Ind.    |
| Thomas, Leslie Norwood                             | ME        | 24½  | Newport, Ind.      |
| Thomas, Lyle                                       | LA        | 100  | Lewistown          |
| Thomas, Marie Anna                                 | LA        | 65   | San Jose           |
| Thomas, Maurice Floyd                              | EE        | 39   | St. Louis, Mo.     |
| Thomas, Melvin                                     | Agr sp    | 115½ | Letart, W. Va.     |
| Thomas, Polly Elizabeth                            | LA        | 27   | Urbana             |
| Thomas, Ralph Raymond                              | EE        | 40   | St. Louis, Mo.     |
| Thomas, Robert Ellsworth                           | CE        | 86   | Rockford           |
| Thomas, Stanley Jeremiah                           | MSE       |      | Vincennes, Ind.    |
| Thomazin, Ethel Julia                              | LA        |      | Chicago            |
| Thompson, Charles Henry                            | CE        | 114  | Chicago            |
| Thompson, Deena                                    | SS        | 7    | Carthage           |
| Thompson, Everett Bragg                            | BLA       |      | Tuscola            |
| Thompson, Fleta                                    | HSLAS     | 100  | Carrier Mills      |
| Thompson, Francis                                  | SS        | 126½ | Pinckneyville      |
| Thompson, George                                   | EE        | 32   | Anna               |
| Thompson, Harold Earle                             | EE        | 110  | Chicago            |
| Thompson, Lillian Maud                             | HSLAS     | 29   | Chicago            |
| Thompson, Mabel Carolyn                            | SS        | 7    | Saybrook           |
| Thompson, Orin Griswold                            | Agr       | 9½   | Springfield        |
| Thompson, Orlando Stephen                          | Agr       | 11½  | Harvey             |
| Thompson, Russell Hopkins                          | BLA       |      | Sullivan, Ind.     |
| Thomsen, Marvin William                            | AE        |      | Fulton             |
| Thomson, Arthur William                            | AE        | 103  | Plymouth, Ind.     |
| Thorndike, Clara Louise                            | HSLAS     | 67   | Austin             |

|                                                       |                   |      |                      |
|-------------------------------------------------------|-------------------|------|----------------------|
| Thorne, Frank Hilton                                  | <i>Agr</i>        | 57½  | Berwyn               |
| Thorne, Laurence Emerson                              | <i>Agr</i>        | 70   | Huntington, Ind.     |
| Throgmorton, Norris Josiah                            | <i>SS</i>         |      | New Burnside         |
| Thurlow, Henry Plummer                                | <i>Agr</i>        | 2    | Niagara Falls, N. Y. |
| Thurston, Alfred William                              | <i>Agr</i>        |      | Champaign            |
| Thurston, Estelle Lenore                              | <i>LA (SS)</i>    | 8    | Terre Haute, Ind.    |
| Thurston, Henry Winfred, Jr.                          | <i>Agr</i>        | 63½  | New Milford, N. J.   |
| Thurston, Isabel Carrie                               | <i>LA</i>         |      | Winnetka             |
| Tibbits, Douglas Deforest                             | <i>Agr</i>        | 113½ | Urbana               |
| Ticknor, James Hotchkiss                              | <i>AE</i>         | 33   | Peoria               |
| Tiedemann, Edwin Wyld                                 | <i>Agr</i>        | 70   | St. Louis, Mo.       |
| Tiffany, Guy Roice                                    | <i>SS</i>         | 6½   | Springfield, Mo.     |
| Tiffany, Hubert Chassee                               | <i>Agr</i>        |      | LaGrange             |
| Tillotson, Ella A                                     | <i>LA</i>         |      | Roswell, N. Mex.     |
| Tillson, Arthur Edward                                | <i>ChE</i>        | 32   | Naperville           |
| Tilton, Kenneth Dale                                  | <i>ME</i>         | 109  | Moline               |
| Tilton, Leon Deming                                   | <i>Agr</i>        | 75   | East St. Louis       |
| Tilton, Walter Joseph                                 | <i>Ch</i>         | 23   | Fairmount            |
| Timmins, Henry A                                      | <i>Agr sp</i>     | 39½  | Chicago              |
| Tinkey, Otto George                                   | <i>EE</i>         | 36   | Decatur              |
| Tinzmann, Erich Ludwig                                | <i>REE (SS)</i>   | 71   | Chicago              |
| Titus, Joseph Clayton                                 | <i>BLA</i>        |      | Champaign            |
| Todd, Ethel                                           | <i>LA</i>         | 64   | La Harpe             |
| Todd, Malcolm Newton                                  | <i>SS</i>         | 9    | Stonington, Ind.     |
| Tokuujama, Sotaro                                     | <i>Ch</i>         |      | Shiznoka, Japan      |
| Tolmie, Thomas William                                | <i>AE</i>         | 33   | Rockford             |
| Tompkins, Elmer Judson                                | <i>ME (SS)</i>    | 28   | Eagle Grove, Iowa    |
| Tong, Teh-Chang Yee-Cheng                             | <i>MnE</i>        |      | Yungchow Foo, China  |
| Tong, Yung Tso                                        | <i>SS</i>         | 87½  | Canton, China        |
| Tonneson, Harrey Allen                                | <i>ME (SS)</i>    | 68   | Ishpeming, Mich.     |
| Tooker, Jesse Glenn                                   | <i>AE</i>         |      | McAlister, Okla.     |
| Torgerson, Edward Fritchhoff                          | <i>Agr</i>        | 112½ | Chicago              |
| Tornquist, Alpha Caroline                             | <i>HSLAS</i>      | 20   | Champaign            |
| Torrence, Frank Harry                                 | <i>ME</i>         | 117  | Marissa              |
| Torrence, Howard John                                 | <i>SS</i>         | 18½  | Manmouth             |
| Tower, Alexander McJunkin                             | <i>REE</i>        |      | Ft. Wayne, Ind.      |
| Towson, Irene                                         | <i>LA</i>         | 68   | Macon                |
| Tracy, Elizabeth Lail                                 | <i>HSLAS</i>      | 20   | Anderson, Ind.       |
| Trantow, Walter Weisse                                | <i>CE</i>         | 32   | Batavia              |
| Treichel, Chester                                     | <i>CerE</i>       | 34   | Kankakee             |
| Trelease, Sidney Briggs                               | <i>BLA</i>        |      | Urbana               |
| Tressel, Harry Shults                                 | <i>L</i>          |      | Terre Haute, Ind.    |
| Triggs, Leon Alvin                                    | <i>BLA (SS)</i>   | 97   | Elgin                |
| Tritt, Frances Irene                                  | <i>HSLAS (SS)</i> | 64   | Pontiac              |
| Troeger, Phillip Theodore                             | <i>Agr</i>        | 35   | Storm Lake, Iowa     |
| Trost, Frances Helen                                  | <i>LA</i>         | 98   | Urbana               |
| Trost, Opal Winifred                                  | <i>HSAgr</i>      | 32   | Urbana               |
| Troster, Oliver John                                  | <i>Agr</i>        | 15   | Bellflower           |
| Trout, Clement Eddy                                   | <i>Agr</i>        |      | Urbana               |
| Trowbridge, Charles Edgar                             | <i>MSE</i>        | 58   | South Bend, Ind.     |
| Trowbridge, Charles Leslie                            | <i>Agr</i>        | 67   | Crete                |
| Trowbridge, Mary Luella                               | <i>LA (SS)</i>    | 61   | Greenville           |
| Troxel, Floyd Elsworth                                | <i>ME</i>         | 36   | Minonk               |
| Troy, Mary Zeliaette, A.B.<br>(Univ. of Alabama) 1912 | <i>Lb</i>         | 33   | Tuscaloosa, Ala.     |
| Truax, Ethel Lorene                                   | <i>SS</i>         | 4    | Oakland              |
| Trulson, Palmer                                       | <i>Agr</i>        |      | Princeton            |
| Trumbo, Silas Max                                     | <i>AE</i>         | 37   | Pontiac              |
| Tsao, John Chuanmou                                   | <i>SS</i>         | 7    | Hong Kong, China     |
| Tsen, Bei Chang                                       | <i>MnE</i>        |      | Ling Young, China    |
| Tsow, Ming                                            | <i>LA</i>         | 19   | Swatow, China        |
| Tucker, Phoebe Caroline                               | <i>LA</i>         | 105  | Roseville            |
| Tuell, Wallace Gerry                                  | <i>EE</i>         | 26   | Canton               |
| Tupper, James Oliver                                  | <i>Agr (SS)</i>   | 34   | Woodstock            |
| Turlay, Anna Marie                                    | <i>LA</i>         | 71½  | Clinton              |
| Turner, Alexander Harvey                              | <i>Agr</i>        | 32   | Loda                 |
| Turner, Bessie Irene                                  | <i>LA</i>         | 96   | Loda                 |
| Turner, Charles Edward                                | <i>LA</i>         |      | Mt. Sterling         |
| Turner, Chisler Charles                               | <i>Agr</i>        |      | St. Joseph           |



|                                  |                 |      |                     |
|----------------------------------|-----------------|------|---------------------|
| Turner, Frank                    | <i>Agr</i>      | 107  | DuQuoin             |
| Turner, Luther Martin            | <i>EE</i>       |      | Beardstown          |
| Turner, Rhodolphus Kibbe         | <i>Agr</i>      | 101  | Butler              |
| Turnquist, Elmer Nels            | <i>LA</i>       |      | Canton              |
| Tuthill, James Pierce            | <i>CE</i>       |      | Elgin               |
| Tuthill, John Kline              | <i>EE</i>       | 111  | LeRoy               |
| Tuttle, Lowell Hafner            | <i>Agr</i>      |      | Oak Park            |
| Tyler, James Hersey              | <i>CE</i>       | 26   | Charleston          |
| Tylski, Walter William           | <i>ME (SS)</i>  | 13   | Chicago             |
| Udinsky, William Phillip         | <i>ChE</i>      | 34½  | Jersey City, N. J.  |
| Uhlhorn, Elmer Henry             | <i>BLA</i>      | 29   | Downers Grove       |
| Ullrich, William                 | <i>SS</i>       | 8    | New Baden           |
| Underwood, Gilbert Stanley       | <i>A (SS)</i>   | 16   | Urbana              |
| Uphaus, Bruce Richard            | <i>ME</i>       | 75   | Chicago             |
| Urbain, Lottie Octavia           | <i>HSLAS</i>    | 49   | DuQuoin             |
| Utter, Henry Benjamin            | <i>AE</i>       |      | Missoula, Mont.     |
| von Valtier, Ralph Paul          | <i>ME</i>       | 47   | Chicago             |
| Vance, Charles Blount            | <i>SS</i>       | 6    | Hillsboro, Ohio     |
| Van Cleave, Bruce                | <i>LA</i>       |      | Springfield         |
| Van Cleave, Mildred May          | <i>S</i>        | 106  | Macomb              |
| Van de Mark, Walter Jacob        | <i>Ch</i>       | 31   | Waukegan            |
| Vanden Boom, Gerry Christopher   | <i>ME</i>       | 35   | Quincy              |
| Vandercook, Henry Peirce         | <i>Agr</i>      | 106½ | Lombard             |
| Vanderhoof, George Levi          | <i>Agr</i>      |      | Wasco               |
| Van Doren, Frank Eugene          | <i>Agr (SS)</i> | 102½ | Urbana              |
| Van Doren, Mark Albert           | <i>LA</i>       | 103  | Urbana              |
| Van Dyke, Earl Henry             | <i>Agr</i>      |      | Plainfield          |
| Van Frank, Elliott Dudley Daniel | <i>A</i>        | 27½  | Danville            |
| Van Horn, Evalyn Jeanette        | <i>LA</i>       |      | Roswell, N. Mex.    |
| Van Meter, Craig                 | <i>LA</i>       |      | Mattoon             |
| Van Natter, Francis Marion       | <i>S</i>        | 31   | Muncie, Ind.        |
| Vansant, Rodman Fleming          | <i>Agr sp</i>   | 30   | Chicago             |
| Vansant, William Laurence        | <i>ME (SS)</i>  | 73   | Chicago             |
| Van Toor, James Everett          | <i>AE</i>       |      | Milwaukee, Wis.     |
| Van Winkle, Paul Keith           | <i>LA</i>       |      | Chicago             |
| Vaughan, Glenn Poland            | <i>BLA</i>      | 61   | Amboy               |
| Vaughan, Myra                    | <i>HSLAS</i>    | 30   | Urbana              |
| Velzy, Charles R                 | <i>ME</i>       | 110  | Harvey              |
| Vernon, Maris Hurford            | <i>CE</i>       |      | Moline              |
| Vibelius, Siegfried Nathaniel    | <i>A</i>        | 36   | Joliet              |
| Vincent, Alice May               | <i>HSAgr</i>    | 15   | Mayon               |
| Virgin, Emma Louise              | <i>HSLAS</i>    |      | Virginia            |
| Vizcaino, Alfonso Ochoa          | <i>A</i>        |      | Guadalajara, Mexico |
| Voegelien, Lenore Alice          | <i>SS</i>       | 4    | Urbana              |
| Vogt, Ernest Carl                | <i>Agr</i>      |      | Coldwater, Mich.    |
| Voigt, Herbert Louis             | <i>CE</i>       | 91   | Chicago             |
| Volk, Alvin Claude               | <i>CE</i>       | 71   | St. Louis, Mo.      |
| Voorhees, Lawrence Elmer         | <i>EE</i>       | 37   | Upper Alton         |
| Vopicka, Fred Frank              | <i>AE</i>       | 10   | Chicago             |
| Voss, Anna                       | <i>Mus</i>      |      | Champaign           |
| Voss, Elizabeth Ann              | <i>HSAgr</i>    | 106  | Champaign           |
| Waddington, Glenn George         | <i>ME</i>       |      | Dewey               |
| Wadsworth, Winthrop Matteson     | <i>AE</i>       | 141  | Minneapolis, Minn.  |
| Wagenknight, Oscar Chamberlain   | <i>SS</i>       | 23½  | LaGrange            |
| Waggoner, Karl Marshall          | <i>A</i>        | 22   | Decatur             |
| Wagner, Alexander                | <i>BLA</i>      | 67   | Chicago             |
| Wagner, Alvin Louis              | <i>BLA (SS)</i> | 108½ | Chicago             |
| Wagner, Joseph Holcman           | <i>LA</i>       |      | Chicago             |
| Wagner, Percy Evan               | <i>BLA</i>      | 57   | Chicago             |
| Wagner, Ralph Russell            | <i>Cer (SS)</i> | 35   | Pontiac             |
| Wagner, William Andrew           | <i>CE</i>       | 74   | Champaign           |
| Wahl, Leo Jacob                  | <i>EE</i>       | 12½  | Sterling            |
| Wainwright, James Butler         | <i>ME</i>       | 75   | Winchester          |
| Wakefield, George Mincke         | <i>CE</i>       | 17   | Alma                |
| Wakeland, Guy Earl               | <i>Agr</i>      |      | Hoopeston           |
| Walcott, Nona                    | <i>SS</i>       | 43½  | Urbana              |
| Walduck, Charles Louis           | <i>CerE</i>     | 126  | Chicago             |
| Walker, Carle Capron             | <i>Agr</i>      | 71½  | Clinton             |
| Walker, Frank Abram              | <i>Agr</i>      |      | Aurora              |

|                              |                 |      |                     |
|------------------------------|-----------------|------|---------------------|
| Walker, George William       | <i>Agr (SS)</i> | 34   | Mackinaw            |
| Walker, John Sawyer          | <i>A</i>        | 68   | Aurora              |
| Walker, Stanton              | <i>CE</i>       |      | Urbana              |
| Walkerly, Dorothy Keziah     | <i>BLA (SS)</i> | 67   | Champaign           |
| Walkerly, Margaret Magdalene | <i>BLA</i>      |      | Champaign           |
| Walkerly, Victoria Pamilla   | <i>HSLAS</i>    | 109  | Champaign           |
| Wallace, Dorothy             | <i>LA</i>       |      | Hamilton            |
| Wallace, Edgar Dearborn      | <i>BLA</i>      | 31   | Chicago             |
| Wallace, Lewis Bryant        | <i>BLA</i>      | 22   | Homer               |
| Wallace, Mabel Clare         | <i>HSAgr</i>    | 108  | LaGrange            |
| Wallage, Stanley Tiffin      | <i>MnE</i>      | 80   | Paris               |
| Waller, Richard Valentine    | <i>EE</i>       | 36½  | Elkhart, Ind.       |
| Walmer, Joseph Charles       | <i>BLA</i>      | 1    | Cairo               |
| Walraven, Wesley Burnham     | <i>EE</i>       | 37   | Centralia           |
| Walser, Frank Emil           | <i>LA</i>       | 112½ | New York City       |
| Walsh, James Joseph          | <i>LA</i>       |      | Mattoon             |
| Walsh, Leo Bernard           | <i>Agr</i>      |      | Rantoul             |
| Walsh, William Russell       | <i>RME</i>      |      | Chicago             |
| Walters, Harvey Henry        | <i>A</i>        | 89   | Beach, N. D.        |
| Walters, Jesse Noble         | <i>Agr (SS)</i> | 120  | Carlisle, Ind.      |
| Walters, Linzy Ellsworth     | <i>SS</i>       | 5    | Newark, Ohio        |
| Walton, Howard Roberts       | <i>BLA</i>      |      | Champaign           |
| Walworth, Ralph Waldo        | <i>Agr</i>      | 66   | Urbana              |
| Walz, Ida Emily              | <i>LA</i>       | 21   | Danville            |
| Wanderer, Herbert Frederick  |                 |      |                     |
| Charles                      | <i>ME</i>       | 4    | Oak Park            |
| Wang, Kung-Kuan              | <i>LA</i>       |      | Shanghai, China     |
| Wang, Te Chang               | <i>Agr (SS)</i> | 32   | Soochow, China      |
| Wangelin, Armin Hugo         | <i>LA</i>       |      | Belleville          |
| Wansbrough, John Edgar       | <i>L</i>        | 25   | Peoria              |
| Wanzen, James Marshall       | <i>Agr</i>      | 39   | Oak Park            |
| Ward, Amy                    | <i>HSLAS</i>    | 29   | El Paso             |
| Ward, Cecilia Blair          | <i>LA (SS)</i>  | 9    | Urbana              |
| Ward, Janet                  | <i>HSLAS</i>    |      | Chicago             |
| Ward, Madge Virginia         | <i>BLA</i>      | 95   | Chicago             |
| Ward, Mamie Lawrence         | <i>LA</i>       | 68   | Chicago             |
| Ware, Manierre Barlow        | <i>Agr</i>      |      | Chicago             |
| Warfield, Vernon Huff        | <i>BLA (SS)</i> | 100  | Urbana              |
| Warinner, Charles Willis     | <i>ME</i>       | 111  | Urbana              |
| Warmolts, Lambertus, Jr.     | <i>CE</i>       | 49   | Oregon              |
| Warner, Earle Eugene         | <i>EE</i>       | 58   | Manito              |
| Warnock, Harper McDill       | <i>Agr</i>      |      | Little York         |
| Warnock, Maude May           | <i>LA sp</i>    | 28   | Urbana              |
| Warnock, Mary Lucile, A.B.   |                 |      |                     |
| (Monmouth Coll.) 1913        | <i>Lb</i>       |      | Little York         |
| Warren, Frank Baker          | <i>CE</i>       | 108  | Pawpaw              |
| Washburn, Charles Sidney     | <i>EE</i>       | 70   | Lenox Dale, Mass.   |
| Washburn, James William      | <i>ME</i>       |      | Lenox Dale, Mass.   |
| Wasson, William Henry Wilson | <i>SS</i>       | 8    | Sparta              |
| Waterman, Louise Hale        | <i>LA</i>       |      | Chicago             |
| Waters, Enos                 | <i>Agr</i>      | 106  | Enos                |
| Watkins, Axie Dell           | <i>HSLAS</i>    |      | Petersburg          |
| Watson, Grover W             | <i>L</i>        | 59   | Farmer City         |
| Watson, Henry Phillips       | <i>Agr sp</i>   |      | Lexington, Miss.    |
| Watson, Jane Coulson         | <i>LA</i>       | 66   | Champaign           |
| Watson, John Wesley          | <i>Agr</i>      | 38   | DeKalb              |
| Watson, Lelia Elta           | <i>HSLAS</i>    | 33   | Champaign           |
| Watson, Perley Melvin        | <i>LA</i>       | 8    | Prairie Creek, Ind. |
| Watters, Katharine Bertha    | <i>LA</i>       |      | Chicago             |
| Watts, Claude Harrison,      |                 |      |                     |
| A.B., 1913                   | <i>L</i>        | 8    | Saunemin            |
| Watts, Ethel Frances         | <i>Mus</i>      | 52   | Ypsilanti, Mich.    |
| Watts, George William        | <i>ME</i>       | 74   | Chicago             |
| Way, Mildred Ruth            | <i>SS</i>       | 128  | Mazeppa, Minn.      |
| Webb, Rayburn Stokes         | <i>A</i>        | 107½ | East St. Louis      |
| Webber, Albert G             | <i>LA</i>       | 108½ | Decatur             |
| Webber, Harry Edwin          | <i>AE</i>       | 76   | Chicago             |
| Webber, Helen Waller         | <i>LA</i>       | 64   | Urbana              |
| Weber, Gertrude T            | <i>S</i>        | 33   | Olney               |



|                              |                  |      |                    |
|------------------------------|------------------|------|--------------------|
| Webster, Gladis Gilbert      | <i>Agr</i>       |      | Washington, Ind.   |
| Webster, Harry Clayton       | <i>CE (SS)</i>   | 110  | Urbana             |
| Weems, Charles Lee           | <i>LA</i>        |      | Quincy             |
| Weems, Nora Key              | <i>SS</i>        |      | Sherman, Texas     |
| Weenink, Ruth Antoinett      | <i>HSAgr</i>     |      | Dillon, Mont.      |
| Wehrle, Frank Ignatius       | <i>Agr</i>       |      | Carmi              |
| Weilepp, Eva Sarah           | <i>HSLAS</i>     | 68   | Decatur            |
| Weinberg, Elizabeth          | <i>HSAgr</i>     |      | Rushville          |
| Weinberg, Flora Jane         | <i>HSAgr</i>     | 57   | Rushville          |
| Weingartner, Clyde Frederick | <i>AE</i>        | 70   | Rockford           |
| Weingartner, Monroe Thomas   | <i>BLA</i>       |      | Belleville         |
| Weiss, Della                 | <i>LA</i>        |      | Chicago            |
| Weiss, Marion Virginia       | <i>LA</i>        |      | Champaign          |
| Welch, John Maurice          | <i>ChE</i>       | 102  | LaSalle            |
| Wells, Edward Roy            | <i>CE</i>        | 105  | Geneva             |
| Wells, Fred Sheaff           | <i>ME</i>        | 74   | Aurora             |
| Welsh, Kathryn Clare         | <i>HSLAS sp</i>  |      | Bradford           |
| Welsh, Marjorie Cecilia      | <i>HSLAS</i>     | 67   | Bradford           |
| Welsh, Roger Thomas          | <i>Agr</i>       | 68   | Rockford           |
| Welty, David Charles         | <i>Agr</i>       |      | Amboy              |
| Welty, Wallace Moorehead     | <i>Agr</i>       | 100  | Chicago            |
| Wenz, Carolyn Louise         | <i>SS</i>        | 106½ | Paris              |
| Wessels, Vera Gretchen       | <i>LA</i>        | 35   | Quincy             |
| West, Harrison               | <i>EE</i>        | 104  | Pecksburg, Ind.    |
| Westcott, Clifford Harper    | <i>CE</i>        | 108  | Maywood            |
| Westervelt, Mayme            | <i>HSAgr</i>     |      | Urbana             |
| Westlund, Emil Hjalmer       | <i>BLA</i>       | 27   | Chicago            |
| Weydell, Arthur Theodore     | <i>ME</i>        | 132  | Chicago            |
| Wham, Benjamin               | <i>LA</i>        | 69   | Cartter            |
| Wheeler, Bryant Long         | <i>Agr</i>       | 53   | Carrollton         |
| Wheeler, Jesse Hardin        | <i>Agr</i>       |      | Carlinville        |
| Wheeler, Russell Claire      | <i>ME</i>        | 69   | Champaign          |
| Wheeler, Parker M            | <i>ME</i>        | 15   | Champaign          |
| Wheeler, William Erastas     | <i>L</i>         |      | East St. Louis     |
| Wheelhouse, Mary Elizabeth   | <i>LA</i>        | 32   | Decatur            |
| Wheelock, Earle Nathaniel    | <i>Agr</i>       |      | Wilmette           |
| Wheelock, Loyal Bergen       | <i>AE</i>        | 29   | Chicago            |
| Whipple, Helen Katherine     | <i>LA</i>        | 34   | Medina, N. Y.      |
| Whitaker, Raymond Charles    | <i>A</i>         | 106  | Davenport, Iowa    |
| Whitchurch, Helen Margaret   | <i>HSAgr</i>     | 31   | Salem              |
| White, Agnes Chloe           | <i>HSLAS</i>     |      | Marion             |
| White, Alice Pauline         | <i>HSAgr</i>     |      | Chicago            |
| White, Frank Herbert, Jr.    | <i>EE</i>        | 40   | Chicago            |
| White, Frank Leon            | <i>ME</i>        | 135  | Galva              |
| White, George Richard        | <i>AE</i>        | 36   | Buffalo, N. Y.     |
| White, John Wilson           | <i>L</i>         | 68   | Salem              |
| White, Marion Kingsley       | <i>HSAgr</i>     |      | St. Joseph, Mo.    |
| White, Thomas Kenneth        | <i>EE (SS)</i>   | 78   | Champaign          |
| Whitehead, Paul              | <i>LA</i>        |      | Vienna             |
| Whitelaw, James Chalmers     |                  |      |                    |
| Cameron                      | <i>CerE (SS)</i> | 78½  | Chicago            |
| Whiteside, Roy Allen         | <i>L</i>         | 28   | Moline             |
| Whitford, Leverett George    | <i>Agr</i>       | 85½  | Louisville, Ky.    |
| Whiting, Vivian Justina      | <i>HSLAS</i>     |      | Urbana             |
| Whitley, Hannah Marian       | <i>LA</i>        |      | Harrisburg         |
| Whitley, Ralph Schureman     | <i>BLA</i>       |      | Chicago            |
| Whitmire, Clarence Leonard   | <i>Md</i>        |      | Waverly, Iowa      |
| Whitmire, Laura Gwendolen    | <i>LA</i>        | 102  | Urbana             |
| Whitnel, Joe                 | <i>L</i>         |      | East St. Louis     |
| Whitney, Joseph Lafeton      | <i>BLA</i>       |      | Oak Park           |
| Whitney, Leonard Hilliard    | <i>MnE</i>       |      | Downers Grove      |
| Whittenberg, Sarah Jane      | <i>SS</i>        | 131½ | Tunnel Hill        |
| Wickard, Hortense Elaine     | <i>LA</i>        | 60   | Garland City, Ark. |
| Wickham, Corwin              | <i>LA</i>        |      | Chicago            |
| Wiebmer, Anton Henry         | <i>EE</i>        | 107  | Quincy             |
| Wiedemann, David, Jr.        | <i>BLA</i>       | 15½  | Harvey             |
| Wiedling, Clarence Clinton   | <i>EE</i>        | 2    | Chicago            |
| Wiggle, Anna Laura           | <i>SS</i>        | 10½  | Denver             |
| Wikoff, Minna Luella         | <i>HSLAS</i>     | 122  | Chicago            |

|                                                        |           |      |                    |
|--------------------------------------------------------|-----------|------|--------------------|
| Wilber, Harold Courtney                                | BLA       | 30   | Potomac            |
| Wilbourn, Asa J, A.B., 1912                            | L         | 53   | Olive Branch       |
| Wilcox, Leila Belle, A.B.<br>(Northwestern Univ.) 1913 | Lb        |      | Princeville        |
| Wiley, Harry Houghes                                   | RME       |      | Sioux City, Iowa   |
| Wiley, Robert Ernest                                   | ME (SS)   | 34   | Warren             |
| Wiley, Sarah Jane                                      | HS Agr    | 25   | Colfax             |
| Wilford, Robert Nicholas                               | Agr       | 30   | Aurora             |
| Wilhite, Ida B                                         | SS        | 5    | Vincennes, Ind.    |
| Wilkins, Charles Milton                                | S         |      | Griggsville        |
| Wilkins, Raymond Harvey                                | Agr       | 113½ | Champaign          |
| Wilkins, Stanley Charles                               | Agr       | 8    | Chicago            |
| Wilkinson, Elon Gilbert                                | BLA (SS)  | 85   | Geneseo            |
| Wilkinson, Jackson Heath                               | CE        | 77½  | Bethany            |
| Will, William George                                   | CE        | 1    | Fairview           |
| Willard, Lucy Ella                                     | SS        |      | Anna               |
| Willcox, Herbert Arthur                                | A         | 64½  | Kasota, Minn.      |
| Wille, Laura May                                       | HSLAS     | 57   | Enid, Okla.        |
| Williams, Charles Leonard                              | BLA       |      | West Ridge         |
| Williams, Charles Nicholas                             | A (SS)    | 23   | Peoria             |
| Williams, Chester Albert                               | A         |      | Sterling           |
| Williams, Earl Clinton                                 | EE        | 108  | Gardner            |
| Williams, Fenton Hamilton                              | BLA       | 34   | Watseka            |
| Williams, Floyd Earl                                   | ME        |      | Rockford           |
| Williams, Frank Lunsford                               | SS        | 27   | St. Louis, Mo.     |
| Williams, Fred Ray                                     | Agr       |      | Martinsville, Ind. |
| Williams, Genevieve                                    | S         | 28   | Sidell             |
| Williams, Helen Jackson                                | BLA       | 4    | Streator           |
| Williams, Howard Thomas                                | AE        |      | Highland Park      |
| Williams, Margaret Stuart, A.B.<br>(Univ. Texas) 1912  | Lb        |      | Hamilton, Texas    |
| Williams, Nellie                                       | LA        |      | Chicago            |
| Williamson, Myra Marie                                 | LA        | 47   | Tuscola            |
| Williford, Edward Allen                                | EE        | 72   | East St. Louis     |
| Williford, Louis Albert                                | L         |      | East St. Louis     |
| Willmarth, Clarence Alfred                             | AE        |      | Atlanta, Ga.       |
| Wills, Neva Rose                                       | HS Agr sp |      | Pittsfield         |
| Willson, Harold Edwin                                  | MnE sp    |      | Baltimore, Md.     |
| Willson, Jennie Fae                                    | LA        | 20   | White Hall         |
| Wilson, Alfred David                                   | Agr       | 29   | McNabb             |
| Wilson, Ashbel Ray                                     | ME (SS)   | 47   | Hutsonville        |
| Wilson, Bernice Celia                                  | HSLAS     | 99   | Los Angeles, Cal.  |
| Wilson, Grover C                                       | EE        |      | Walnut             |
| Wilson, Helen May                                      | LA        | 15   | Chicago            |
| Wilson, Isabelle Chilton                               | HSLAS     | 2    | Arbuckle, W. Va.   |
| Wilson, James Aiken                                    | RME       | 112½ | Herrin             |
| Wilson, Leo                                            | S         |      | Mt. Vernon         |
| Wilson, Louis Andrew                                   | CE        |      | East St. Louis     |
| Wilson, Norman Kenneth                                 | CE        | 108  | Chicago            |
| Wilton, St. John William                               | SS        | 7½   | Huey               |
| Wiman, Raymond Victor                                  | Agr sp    |      | Oblong             |
| Winn, Victor Jay                                       | LA        |      | Chicago            |
| Winning, Margaret Irene, Ph.B.<br>(Univ. Wooster) 1912 | Lb        |      | Rossville          |
| Winqvist, Samuel Victor                                | BLA       | 101  | Batavia            |
| Winter, Elijah                                         | Agr       |      | Anawan             |
| Winters, Arthur Danforth                               | SS        |      | Hutsonville        |
| Winters, Charles Prior                                 | LA        | 66   | Chicago            |
| Wirth, Walter Valentine                                | Ch        |      | Mt. Carmel         |
| Wise, Clark Edward                                     | Agr       |      | Champaign          |
| Wisehart, Eugene Laurence                              | S         |      | Terre Haute, Ind.  |
| With, George Orlando                                   | MSE       | 70½  | Joliet             |
| Wittenberg, George Hyde                                | A         | 111  | Little Rock, Ark.  |
| Woelbeling, William Kenneth                            | MnE       | 44   | Chicago            |
| Wold, Ingal Ensor                                      | Agr       | 38   | Dixon              |
| Woleben, Dean Parkhurst                                | CE        | 118  | Chicago Heights    |
| Wolf, Antonette Catherine                              | S         |      | La Salle           |
| Wolfe, Viola Esther                                    | LA        | 65   | Urbana             |
| Wolff, Clarence Jacob                                  | BLA       | 92   | Urbana             |



|                                                                         |          |     |                    |
|-------------------------------------------------------------------------|----------|-----|--------------------|
| Wolter, Mitchell                                                        | BLA      | 35  | Moline             |
| Woltmann, Jesse John                                                    | CE       | 122 | Nokomis            |
| Woltmann, Louis William                                                 | BLA      |     | Nokomis            |
| Womacks, Mabel Clara                                                    | SS       | 106 | Champaign          |
| Wong, Kuen Yick                                                         | Agr (SS) | 33½ | Kwangchow, China   |
| Woo, Chi Ting                                                           | BLA      |     | Chekiang, China    |
| Woo, Yin                                                                | LA (SS)  |     | Swatow, China      |
| Wood, Adeline                                                           | HSAgr    | 32  | Sullivan           |
| Wood, Atha Eudora                                                       | HSAgr    |     | Gifford            |
| Wood, Harry Gardner                                                     | EE       | 109 | Jacksonville       |
| Wood, Harry Thomas                                                      | LA       | 97  | Hennepin           |
| Woodcock, Harold Richard                                                | BLA      | 23  | Champaign          |
| Woodcock, Helen Ernestine                                               | HSLAS    | 23  | Ogden, Utah        |
| Woodrooffe, Louise Marie                                                | LA       | 13  | Champaign          |
| Woods, Andrew Chevalier                                                 | ME       |     | Chicago            |
| Woods, Ralf Charles                                                     | Agr      |     | Evanston           |
| Woods, Ray James                                                        | BLA      |     | Evanston           |
| Woodward, Edwin Mortimer                                                | A        | 36  | Odin               |
| Woody, Nathan Adolph                                                    | LA       |     | Thornton, Ind.     |
| Woodyatt, Harold                                                        | Ch       |     | Dixon              |
| Woolman, Rachel Margaret                                                | HSAgr    | 34  | Urbana             |
| Woolman, Richardine                                                     | LA       | 41  | Urbana             |
| Wooters, Gordon                                                         | SS       |     | Dix                |
| Wooters, James Ellsworth, Ph.B.<br>(Blackburn Coll.) 1908 A.M.,<br>1913 | Agr (SS) | 26  | Champaign          |
| Wooters, Leland Magness                                                 | BLA (SS) | 97  | Champaign          |
| Wooters, Normal Elsworth                                                | Agr (SS) | 28  | Champaign          |
| Worcester, Lenora Mary                                                  | HSLAS    | 48  | Genoa              |
| Workman, Russell Clark                                                  | REE      |     | Springfield        |
| Worrell, Grace Lucile                                                   | S (SS)   | 100 | Bowen              |
| Worthington, Robert, Jr.                                                | Md       | 15  | Petersburg         |
| Wray, Charles William                                                   | Agr      | 33  | Rockford           |
| Wright, Agnes                                                           | LA       | 29  | Charles City, Iowa |
| Wright, Bernice                                                         | LA       | 99  | Brocton            |
| Wright, Burrell                                                         | L        | 30  | Freeport           |
| Wright, Douglas, Jr.                                                    | Agr      | 68½ | Decatur            |
| Wright, Edward Paul                                                     | CE       | 35  | Brocton            |
| Wright, Emma                                                            | HSAgr    |     | Bloomington        |
| Wright, Frank                                                           | Agr      |     | Bloomington        |
| Wright, Josef Franklin                                                  | BLA      | 25  | Beaumont, Texas    |
| Wright, Joseph William                                                  | CcrE     | 34  | Herscher           |
| Wright, Melvin James                                                    | L (SS)   |     | Urbana             |
| Wright, Minnie Roberta                                                  | LA       | 95  | Urbana             |
| Wright, Newton Anthony                                                  | Agr      | 77½ | Shelbyville        |
| Wright, William Joshua, Jr.                                             | Ch       | 31  | Dongola            |
| Wrisley, George Alfred                                                  | ChE      | 38  | Chicago            |
| Wu, Charles Sien                                                        | LA       |     | Kianghi, China     |
| Wu, Wei Yoh                                                             | ME       | 24  | Hunan, China       |
| Wyant, Carl Stanley                                                     | A        | 112 | Waterloo, Iowa     |
| Wykle, Bertha Alice                                                     | LA       | 103 | Mahomet            |
| Wykle, Ethel Marie                                                      | HSAgr    | 52  | Mahomet            |
| Wyland, Ray Orion                                                       | LA       | 38  | Ringwood, Okla.    |
| Wyman, Wallace                                                          | A        | 107 | Mansfield          |
| Yang, Tsao Shing                                                        | LA       |     | Singhua, China     |
| Yao, Yu Tai                                                             | S        | 13  | Fuchow, China      |
| Yapp, James Fook Onn                                                    | CE (SS)  |     | Honolulu, Hawaii   |
| Yarnell, Lena Seville                                                   | LA       |     | Bowen              |
| Yeasel, Lloyd Homer                                                     | LA       |     | East Lynn          |
| Yee, Gan Chyo                                                           | ChE      |     | Hunan, China       |
| Yim, Albert Mun                                                         | CE       |     | Honolulu, Hawaii   |
| Yim, Daniel Jow                                                         | LA       | 20  | Canton, China      |
| Yoch, Florence Teresa                                                   | Agr      | 62  | Santa Ana, Cal.    |
| Yoke, John Johnathan                                                    | SS       | 131 | Acton, Ind.        |
| York, Mattie Agnes, A.B., 1911                                          | SS       | 141 | Pleasant Plains    |
| Young, Arthur Edwin, A.B.<br>(Northwestern Univ.) 1906                  | SS       | 7½  | Eugene, Ore.       |
| Young, Arthur Tatarian                                                  | BLA      |     | Chicago            |
| Young, Ruth Elizabeth                                                   | LA       | 43  | Casey              |

|                              |                |                  |                  |
|------------------------------|----------------|------------------|------------------|
| Young, Walter Fred           | <i>Agr</i>     |                  | Marissa          |
| Young, Wing Fong             | <i>CE</i>      |                  | Honolulu, Hawaii |
| Younglove, Clyde Charles     | <i>AE</i>      | 109              | Sioux City, Iowa |
| Yourex, Kate Louise          | <i>SS</i>      | 9                | Modesto, Cal.    |
| Zahn, Fred Raymond           | <i>MSE</i>     | 101              | Belle Rive       |
| Zajicek, Joseph Robert       | <i>ME</i>      | 4                | Chicago          |
| Zaleski, John Paul           | <i>Agr</i>     |                  | Louisa, Russia   |
| Zee, Jeshime Zohn            | <i>EE</i>      | 122              | Shanghai, China  |
| Zelle, Carl Alfred           | <i>Ch</i>      | 34               | Lake Fork        |
| Zeppenfeld, Eugene William   | <i>Agr</i>     | 103              | St. Louis, Mo.   |
| Zeter, Harry Moyer           | <i>Agr</i>     | 64 $\frac{1}{2}$ | Lincoln          |
| Zetterholm, Maurice Emil     | <i>L</i>       | 15               | Galesburg        |
| Zieman, William Walter       | <i>ChE</i>     | 63               | Chicago          |
| Zilly, Agnes Elizabeth       | <i>LA</i>      | 85               | Champaign        |
| Zimmer, Alvin Joslyn         | <i>CerE</i>    | 42               | Chicago          |
| Zimmerman, Anthony Urban     | <i>ME</i>      | 84               | Peoria           |
| Zimmermann, Arthur Charles   | <i>AE</i>      | 51               | Peru             |
| Zinser, Robert Bruce         | <i>BLA</i>     | 20               | Washington       |
| Zipf, Oscar Robert, Jr.      | <i>Agr</i>     | 30               | Freeport         |
| Zipprodt, Roy Richard        | <i>AE (SS)</i> | 79               | Urbana           |
| Zollinger, Marguerite Eunice | <i>HSLAS</i>   |                  | Polo             |
| Zollinger, James Edward      | <i>EE</i>      | 73               | Alliance, Nebr.  |
| Zook, Jacob Bloom            | <i>EE (SS)</i> | 102              | LaGrange         |

## COLLEGE OF MEDICINE

| NAME                                      | CLASS* | RESIDENCE             |
|-------------------------------------------|--------|-----------------------|
| Ackerman, Joseph William                  | 1      | Chicago               |
| Adams, Gordon Charles                     | 3 (SS) | Newton Center, Mass.  |
| Adelman, Herman Joseph                    | 4 (SS) | Joliet                |
| Alden, Samuel Jacob                       | 3      | Goodlettsville, Tenn. |
| Alder, Clay, Ph.C.                        | 3 (SS) | Athol, Kans.          |
| Anderson, Karl A                          | 3      | Kent City, Mich.      |
| Anderson, Oswald Ethelred                 | 3      | Old Harbor, Jamaica   |
| Anderson, Stewart Harry                   | 3      | Wells, Minn.          |
| Anderson, Victor Joseph                   | 2      | Chicago               |
| Appelle, Conrad George                    | 2      | Mt. Carroll           |
| Arthurton, Robert Nathaniel               | 3 (SS) | Chicago               |
| Ashmore, Frank, B.S. (Denison Univ.) 1908 | 4      | Chicago               |
| Ashworth, John Paul, M.D.                 | 4 (SS) | Chicago               |
| Asuzano, Marcelino                        | 3 (SS) | Manila, P. I.         |
| Baker, William A                          | 1      | Richmond, Maine       |
| Barickman, Robert Irving                  | 2      | Peoria                |
| Barnett, Alexander Herbert                | 3      | Chicago               |
| Barnett, Edwin Judge                      | 2      | Peoria                |
| Barnett, Samuel                           | 2 (SS) | Chicago               |
| Baxter, Harry Toler                       | 4      | Astoria               |
| Beatty, Ernest Gaston                     | 3      | Jerseyville           |
| Beatty, Hannah Jane                       | 2      | Lake View, Ohio       |
| Benjamin, Harry Webb                      | 1      | Urbana                |
| Bennett, John Francis                     | 2      | Waterford, Wis.       |
| Berge, Maurice Aurelius                   | 1      | Ransom                |
| Berger, Alvin Gustav                      | 2      | Milwaukee, Wis.       |
| Bergin, Clifford Edward                   | 2      | Chicago               |
| Bernstein, Alick                          | 2 (SS) | Chicago               |
| Betts, Arthur                             | 3      | Mitchell, S. D.       |
| Bivings, Franklin Charles                 | 2      | Atlanta, Ga.          |
| Blim, Spencer Phelps                      | 2 (SS) | Crete                 |
| Blim, Warren Caldwell                     | 2 (SS) | Crete                 |
| Blodgett, Pliny Russell                   | 2      | Harvard               |
| Boehmer, Arthur Clarence                  | 4 (SS) | Tomah, Wis.           |
| Boger, Thomas Abram                       | sp SS  | Chicago               |
| Bolka, Bernard Joseph                     | 2      | Michigan City, Ind.   |
| Boswell, John Thomas                      | 2      | Kewanee               |
| Bowden, John Miles, Ph.C.                 | 1      | Brunswick, Ga.        |

\*Abbreviations: 1, first year; 2, second year; 3, third year; 4, fourth year; sp, special.



|                              |    |      |                       |
|------------------------------|----|------|-----------------------|
| Bowell, Roy Melson           | 2  |      | Rolling Prairie, Ind. |
| Bowers, Harry Elbert         | 4  |      | Maiden Rock, Wis.     |
| Brachvogel, Max              | 4  | (SS) | Aberdeen, Wash.       |
| Brengle, Deane Rockhold      | 4  |      | Perth, Kans.          |
| Brodsky, Lewis Leonard       | 3  |      | Chicago               |
| Brosnan, John Thomas         | 2  |      | Chicago               |
| Broudo, Philip Harmon        | 3  |      | Toronto, Ont.         |
| Brown, Carl Kice             | 4  | (SS) | Agra, Okla.           |
| Brown, Dean Cassius          | 3  |      | Minneapolis, Minn.    |
| Brown, Ralph Emerson         | 4  |      | Homer                 |
| Brucker, Edward Arthur       | 2  |      | Fond du Lac, Wis.     |
| Bryan, Arthur Lynn           | 4  | (SS) | Chicago               |
| Burling, Wesley Morgan       | 2  |      | Muskegon, Mich.       |
| Byrnes, William Armstrong    | 1  |      | Minneapolis, Minn.    |
| Capron, Manley Joseph        | 2  |      | Waldron, Mich.        |
| Carls, Frederick George      | 4  |      | Clay Center, Kans.    |
| Carnahan, William Ernest     | 4  | (SS) | Adair                 |
| Carney, James Gilbert        | 4  | (SS) | Armour, S. D.         |
| Carothers, Herbert Chapman   | 1  |      | Chicago               |
| Carr, Earl Curtis            | 3  |      | Maquoketa, Ia.        |
| Carroll, William Franklin    | 2  |      | Hannibal, Mo.         |
| Carstensen, Albert Brockway  | 2  |      | Waverly, Ia.          |
| Casey, Emmet Francis         | 2  |      | Chicago               |
| Cassell, Lee S               | 4  |      | Freemont, Ind.        |
| Cecil, Eugene Randolph       | 2  |      | Chicago               |
| Champlin, Harrison Gerald    | 4  | (SS) | Chicago               |
| Chmelik, Frank Joseph        | 2  |      | Chicago               |
| Cienciara, Felicia Helen     | 3  |      | Chicago               |
| Clark, Alger Arthur          | 2  |      | Chicago               |
| Claypool, Blaine Wilson      | 2  |      | Chicago               |
| Cobb, Horace R               | 2  |      | Kalamazoo, Mich.      |
| Cody, Michael Milton         | 2  |      | Chicago               |
| Coen, Walter William         | 2  |      | Munhall, Pa.          |
| Cohen, Joshua Oscar          | 4  | (SS) | Chicago               |
| Cohler, Lazarus              | 3  | (SS) | Chicago               |
| Cohn, Alexander              | 1  |      | Urbana                |
| Cole, LaMont                 | 4  |      | Paris, Idaho          |
| Colebaugh, Charles William   | 2  |      | Chicago               |
| Collins, Veda Nathalie       | 2  |      | Reedsburg, Wis.       |
| Conley, Charles Calvin       | 4  | (SS) | Grandville, Okla.     |
| Conley, Thomas Edward        | 4  | (SS) | Cazenovia, Wis.       |
| Conway, John M               | 3  | (SS) | Elroy, Wis.           |
| Cooper, Ward                 | 2  |      | Parsons, Kans.        |
| Coopridge, Florence Virginia | 4  | (SS) | McPherson, Kans.      |
| Corpus, Telfio Pedro         | 3  | (SS) | Philippine Islands    |
| Cotton, Schuyler Opp         | 2  |      | Vermilion, S. D.      |
| Cram, Walter Warren          | 2  |      | Sheldon, Ia.          |
| Cross, Aubrey James          | 2  |      | Aberdeen, Wash.       |
| Culver, Albert George        | 2  |      | Chicago               |
| Cushman, Agnes Beulah        | 2  |      | Bethany, Mo.          |
| Cusick, George William       | 4  |      | Chicago               |
| Cutler, Irwin Herbert        | 3  |      | Chicago               |
| Cutting, Lloyd David         | 2  |      | Stevens Point, Wis.   |
| Dailey, George Leslie        | 3  |      | Almena, Kans.         |
| Dame, Louis                  | 1  |      | Chicago               |
| Davies, Raymond Evan         | 1  |      | Champaign             |
| Davis, Arthur                | 4  | (SS) | Gloster, England      |
| Decovsky, Abraham            | 2  |      | Chicago               |
| DeHann, Martin Ralph         | 4  |      | Zeeland, Mich.        |
| De Freitas, Joseph Alphonse  | 1  |      | Springfield           |
| Devers, William Elijah Moore | 4  |      | Mitchell, S. D.       |
| Dillon, Edward Joseph        | 1  |      | Chicago               |
| Dixon, Frederick William     | sp | SS   | Delaware, Ohio        |
| Doisy, Edward Albert         | 1  |      | Champaign             |
| Doktorsky, Maurice           | 2  |      | Chicago               |
| Doughty, James William       | 3  |      | Elroy, Wis.           |
| Du Four, Emery Holmes        | 4  | (SS) | Grays Lake, Wis.      |
| Duffner, Mary Lena           | sp |      | Chicago               |
| Dusch, Lawrence Dale         | 4  | (SS) | Hesston, Kans.        |

|                                |        |                     |
|--------------------------------|--------|---------------------|
| Dyer, William Holmes           | 2      | Chicago             |
| Earel, Fred Elwell             | 2      | Abingdon            |
| Eaton, Roscoe Conklin          | 4 (SS) | Hornell, N. Y.      |
| Eck, Charles Patt, Ph.G.       | 2      | Chicago             |
| Edwards, Walter Raymond        | 2      | Ward, Ia.           |
| Eichler, Theodore Fred         | 2      | Ada, Minn.          |
| Eisenberg, Dave                | 2      | Minneapolis, Minn.  |
| Ellis, George Curtis           | 1      | Urbana              |
| Elston, Lynn Wickwire          | 2      | Angola, Ind.        |
| Elvidge, Ross Edmund           | 3 (SS) | Rockford            |
| English, Hubert Morton         | 1      | Urbana              |
| English, Lloyd Hayden          | 1      | Urbana              |
| Evans, Arthur Morgan           | 2 (SS) | Chicago             |
| Evans, William Henry           | 4      | Murphysboro         |
| Eye, Boyd Franklin, Jr.        | 2      | Talmage, Kans.      |
| Far, Shakir Elias              | 2      | Palestine, Turkey   |
| Farbiszewski, Amelia           | 1      | Chicago             |
| Fenchel, Louis Samuel          | 2      | Chicago             |
| Fink, Marion Shelby            | 2      | Chicago             |
| Fitch, Royal Frank             | sp     | Tomah, Wis.         |
| Fitzgerald, George Michael     | 3      | Fond du Lac, Wis.   |
| Fordyce, Alexander William     | 2      | Gilman              |
| Formosa, Anthony Carle         | 3      | Chicago             |
| Fortelka, Frank Louis          | 1      | Chicago             |
| Fournadjieff, Dimiter George   | 3      | Bulgaria            |
| Fox, Nicholas Israel           | 4 (SS) | Chicago             |
| Fox, Roy Edward                | 4      | Dayton, Ohio        |
| Franchere, Chetwynd Mair       | 3      | Chicago             |
| Francisco, Sixto Acosta        | 1      | Batangas, P. I.     |
| Franke, Meta Elise             | 4      | Milwaukee, Wis.     |
| Freilich, Ellis Benjamin       | 4 (SS) | Chicago             |
| Freilich, Harry Hirsch         | 3      | Chicago             |
| Frise, Dudley Cureton, Ph.C.   | 3      | Minneapolis, Minn.  |
| Galgano, Michael Archangel     | 4 (SS) | Chicago             |
| Gates, Leo Vincent             | 1      | Elgin, Minn.        |
| Gilchrist, Virgil Martha, B.S. | 1      | Moscow, Idaho       |
| Gilmore, Russell Adams         | 2      | Michigan City, Ind. |
| Gleason, Michael Hugh          | 3 (SS) | Butte, Mont.        |
| Glover, Harold Mortimer        | 2      | Newton, Kans.       |
| Gochnaur, Orlando Merrill      | 3 (SS) | Freeport            |
| Goggin, John Gervase           | 2      | Rochester, Minn.    |
| Goldberg, Benjamin             | 3      | Chicago             |
| Golden, Waldo Emerson          | 1      | Champaign           |
| Gordon, George                 | 3 (SS) | Chicago             |
| Gordon, James Kenneth          | 2      | Sparta              |
| Gottschalk, Clara Grace        | 3      | Chicago             |
| Gotthelf, Edward John          | 4 (SS) | Sioux Falls, S. D.  |
| Goy, Michael                   | 3      | Chicago             |
| Graham, Reuben Waddell         | 3      | Gallipolis, Ohio    |
| Greenwald, Saul Charles        | 3      | Chicago             |
| Greis, Rudolph                 | 1      | Chicago             |
| Griffy, Roy                    | 4      | Oblong              |
| Grissom, Calton Barney         | 1      | Syracuse, Kans.     |
| Groot, James Tobias            | 1      | Chicago             |
| Hahn, Frederick                | 3      | Omaha, Nebr.        |
| Hakansson, Eric Gosta          | 3 (SS) | Chicago             |
| Halbert, Stanley Knox          | 4      | Springfield         |
| Hale, Earl Grant               | 1      | Jackson, Mich.      |
| Harner, LeRoy Harold           | 4      | Buchanan, Mich.     |
| Harrington, Reuben Joseph      | 4      | Bessemer, Mich.     |
| Harris, Urban Bunyon           | 4      | Chicago             |
| Hartman, Ralph Chapel          | 4 (SS) | Davis               |
| Hartwell, Basil Ormond         | 1      | Maysville, Mo.      |
| Hartwig, Gerhard Frederick     | 3      | St. Ansgar, Ia.     |
| Hasek, Victor Hugo             | 2      | Cedar Rapids, Ia.   |
| Hawthorne, Grace Maud          | 2      | Nevada, Ia.         |
| Hearn, James Bernard           | sp SS  | Chicago             |
| Henkin, Henry                  | 2      | Chicago             |
| Herpe, Gustav Goodman          | 3      | Chicago             |



|                                                            |   |      |                         |
|------------------------------------------------------------|---|------|-------------------------|
| Hildebrand, Gustav J                                       | 1 |      | Sheboygan, Wis.         |
| Hiskey, George Nye                                         | 4 | (SS) | Chicago                 |
| Hoaglund, Arthur William                                   | 3 |      | Minneapolis, Minn.      |
| Hoff, Einar                                                | 3 |      | Chicago                 |
| Hoffman, Goldie                                            | 3 |      | Chicago                 |
| Hoffman, Harvey Peter                                      | 4 |      | Buffalo, N. Y.          |
| Hollender, Abraham                                         | 3 | (SS) | Chicago                 |
| Hollmers, William David                                    | 3 | (SS) | Chicago                 |
| Houda, Rose Sophia                                         | 4 |      | Chicago                 |
| Howard, Willard Samuel                                     | 4 | (SS) | Rice Lake, Wis.         |
| Hubbell, Joseph Albert                                     | 1 |      | St. Cloud, Minn.        |
| Huber, Paul Robert, Ph.G.                                  | 1 |      | Chicago                 |
| Huckins, Edward Spaulding                                  | 2 | (SS) | Bay City, Mich.         |
| Hughart, Harold Hershall                                   | 1 |      | Pocatello, Idaho        |
| Hunt, Gerald Charles                                       | 2 |      | Des Moines, Ia.         |
| Hussey, Bartholomew Edward                                 | 4 |      | Chicago                 |
| Ignatius, Arsharve                                         | 2 |      | Armenia                 |
| Ikeda, Kano                                                | 4 |      | Tokio, Japan            |
| Irwin, Charles Edward                                      | 2 |      | Belle Plaine, Ia.       |
| Isham, Anna Elizabeth, A.B. (Nebraska Wesleyan Univ.) 1907 | 4 | (SS) | University Place, Nebr. |
| Israelson, William                                         | 2 |      | Chicago                 |
| Iverson, Louis                                             | 1 |      | Badger, Maine           |
| Jackman, Johnston Charles                                  | 4 | (SS) | Madison, Wis.           |
| Jackson, Richard Howard, B.S. (Bishop's Coll.) 1910        | 2 |      | Bethany, Ia.            |
| Jacobson, Clarence August                                  | 2 |      | Chicago                 |
| Jacobson, Lee Jacob                                        | 2 |      | Chicago                 |
| Jaffe, Joseph                                              | 2 |      | Chicago                 |
| Jaracz, Walter John                                        | 2 |      | East Chicago, Ind.      |
| Jeffrey, Charles Wykoff                                    | 3 |      | Osceola, Nebr.          |
| Jeffrey, James Robinson, Jr.                               | 1 |      | Nortonville, Kans.      |
| Jeffries, Daniel William                                   | 2 |      | Marietta                |
| Jelliff, Martin Bushnell                                   | 1 |      | Mansfield, Ohio         |
| Jirsa, Otto John                                           | 2 |      | Chicago                 |
| Johnson, Carl Arthur                                       | 4 |      | Livingston, Mont.       |
| Johnson, Iven Godfrey                                      | 2 |      | Maywood                 |
| Johnson, Walter Lawrence                                   | 3 |      | Falls City, Nebr.       |
| Johnston, Kenneth Lawrence                                 | 4 | (SS) | Seymour, Ia.            |
| Jones, Alfred Edward                                       | 3 |      | Chicago                 |
| Jones, Orion C                                             | 1 |      | Redman                  |
| Jongewaard, Wilhelmina Jacoba                              | 4 |      | Orange City, Ia.        |
| Juurs, Richard Henry                                       | 4 |      | Warsaw, Wis.            |
| Kahn, Meyer                                                | 3 |      | Chicago                 |
| Karatz, Morris Bacon                                       | 2 |      | Minneapolis, Minn.      |
| Katz, Harry                                                | 2 | (SS) | Chicago                 |
| Kellner, Victor Vincent                                    | 4 | (SS) | Kellnersville, Wis.     |
| Kennedy, Josephine, A.B. (Wheaton Coll.) 1912              | 1 |      | Wheaton                 |
| King, Elbert Rife                                          | 3 | (SS) | Pueblo, Colo.           |
| King, Ralph                                                | 2 |      | Olney                   |
| Kirkeberg, Sigurd Frederick                                | 1 |      | Moorhead, Minn.         |
| Kleger, Samuel Arthur                                      | 3 |      | Battle Creek, Mich.     |
| Klein, Robert Gotfred                                      | 3 |      | Montrose, Colo.         |
| Kleinschmidt, Henry William                                | 4 |      | Oshkosh, Wis.           |
| Knight, Leaf Cort                                          | 3 |      | Sioux Falls, S. D.      |
| Koch, Herman Carl                                          | 2 |      | Harvard                 |
| Kollar, John Anton                                         | 2 |      | Pana                    |
| Konkowski, Francis Eugene                                  | 1 |      | Chicago                 |
| Konopa, Joseph Florian                                     | 2 |      | Chicago                 |
| Kulasavicz, Bernard J                                      | 2 | (SS) | Bessemer, Mich.         |
| Kutzenberger, Helen Pearl                                  | 2 |      | Jerseyville             |
| Lacey, John Mark                                           | 4 |      | Sonora, Cal.            |
| Lampert, Max                                               | 2 |      | Forest Park             |
| Landau, George Milton                                      | 3 | (SS) | Chicago                 |
| Langan, Arthur John                                        | 4 | (SS) | Chicago                 |
| Langdon, Floyd Burdick                                     | 3 |      | Coleman, Wis.           |
| Langlois, Harvey Louis, A.B.                               | 1 |      | Kankakee                |
| Larkin, Cyril James                                        | 3 |      | Chicago                 |

|                                                        |        |                      |
|--------------------------------------------------------|--------|----------------------|
| Leach, James Joseph                                    | 4 (SS) | Chicago              |
| Lecklider, Arlington Fay Jacob                         | 4 (SS) | Chicago              |
| Leef, Isadore Abraham                                  | 2      | Chicago              |
| Lefkoff, Theresa Hustoff (Mrs.)                        | 1      | Chicago              |
| Legriss, Louis Joseph A, M.D.                          | 4      | Arctic, R. I.        |
| Lebinger, Henry Robert                                 | 2      | Chicago              |
| Leiserwitz, Samuel Brody                               | 1      | Herscher             |
| Lenit, Oscar Sydney                                    | 4 (SS) | Chicago              |
| Levin, Eli                                             | 1      | Indiana Harbor, Ind. |
| Lewinsky, Harry                                        | 4 (SS) | Chicago              |
| Lien, Fred Oscar                                       | 4      | Minneapolis, Minn.   |
| Light, Leland S                                        | 4 (SS) | Chrisman             |
| Lindsey, Charles Elder                                 | 4 (SS) | Lexington            |
| Ling, Hie-Ding (Miss)                                  | 3 (SS) | Foochow City, China  |
| Lipp, George Robert                                    | 2      | Brandon, Wis.        |
| Lipschultz, Jacob                                      | 2      | Chicago              |
| Luckett, Coen L                                        | 1      | Champaign            |
| Lungmus, Bruno                                         | 2      | Chicago              |
| Lutz, Carl William                                     | 3      | Ottawa               |
| Lyman, Horace Chauncey                                 | 3      | Graceville, Minn.    |
| McCaffrey, Eugene Henry                                | 3      | Maquoketa, Ia.       |
| McCaffrey, Phillip John                                | sp     | Chicago              |
| McCann, Florence Edith                                 | 4 (SS) | Aberdeen, S. D.      |
| McClanahan, Benjamin Vaughn                            | 3      | Galesburg            |
| McCoy, Henry James                                     | 1      | Amboy                |
| McCornack, Robert Lee                                  | 3      | Chicago              |
| McDonald, Justin Joseph                                | 4 (SS) | Arlington            |
| McLaughlin, James Henry                                | 2      | South Chicago        |
| Maccani, William Louis                                 | 4 (SS) | Bessemer, Mich.      |
| Madsen, George Walter                                  | 2      | Chicago              |
| Mandanas, Aniceto Y                                    | 2      | Bana, P. I.          |
| Mann, Sigmund                                          | 2      | Chicago              |
| Manny, Mary Alice                                      | 2      | Tacoma, Wash.        |
| Marchan, Juan Sixto                                    | 2      | Porto Rico           |
| Mars, Hartley Farnham, Ph.C.                           | 1      | Clinton              |
| Martin, John Neal                                      | 2      | Yuma, Ia.            |
| Martin, Leon Wade                                      | 1      | Plainwell, Mich.     |
| Masslov, Eleanor Sophia                                | 3      | Forest Park          |
| Matthews, Cora Armiuta                                 | 2      | Moundville, Mo.      |
| Maupin, Howard S                                       | 4 (SS) | Shelbina, Mo.        |
| May, Edwin Ralph                                       | 1      | Clinton              |
| Mayers, Lawrence Hampson                               | 3 (SS) | Millersburg, Ohio    |
| Meacham, Hubert Franklin                               | 3      | Oak Park             |
| Meggers, Edward Charles                                | 1      | Walker, Ia.          |
| Meyer, Anthony A, B.S.<br>(Valparaiso Univ.) 1910      | 4 (SS) | Freeport, Minn.      |
| Meyer, Harry                                           | sp     | Chicago              |
| Middleton, William Drummond,<br>B.S. (Univ. Iowa) 1906 | 4      | Davenport, Ia.       |
| Miller, Gertrude Helen                                 | 2      | St. Louis, Mo.       |
| Miller, Wilmot Paul                                    | 4 (SS) | Milwaukee, Wis.      |
| Miner, William Henry                                   | 4 (SS) | Girard               |
| Minker, Max                                            | 4 (SS) | Chicago              |
| Mix, Walter Spaulding                                  | 3 (SS) | Beardstown           |
| Moffett, Reuben Alvord                                 | 2      | Wenona               |
| Morse, Morton Patrick                                  | 3      | LeRoy, Minn.         |
| Mudge, William Albert                                  | 4 (SS) | Ishpeming, Mich.     |
| Mueller, Walter Edwin                                  | 2      | Green Bay, Wis.      |
| Mulholland, William James                              | 2      | Chicago              |
| Nadeau, Emile George                                   | 4 (SS) | Marinette, Wis.      |
| Nakaya, Fusa                                           | 2      | Kyoto, Japan         |
| Natvig, Gerhard Alfred                                 | 4      | Bricelyn, Minn.      |
| Newcomb, John Elijah                                   | sp     | Gibson City          |
| Nigro, Rocco                                           | 2      | Chicago              |
| Norton, Harry Sims                                     | 2 (SS) | Pontiac              |
| Norwood, Lincoln Harrison                              | 1      | Blue Jacket, Okla.   |
| Novak, Frank John, Jr.                                 | 4      | Chicago              |
| Nyvall, Clarence Ambrose                               | 3      | Idaho Falls, Idaho   |



|                                                                                              |    |      |                       |
|----------------------------------------------------------------------------------------------|----|------|-----------------------|
| O'Brien, Louis Thomas                                                                        | 4  | (SS) | Elkhart, Ind.         |
| O'Connor, William Albert                                                                     | 4  |      | Chicago               |
| Ochs, Arthur John                                                                            | sp | (SS) | Chicago               |
| Ofner, Lester Irving                                                                         | 3  |      | Chicago               |
| Ogden, Claude Harris                                                                         | 2  | (SS) | Cedarville, N. J.     |
| Olson, Clarence Willard                                                                      | 1  |      | Escanaba, Mich.       |
| Pacak, Frances                                                                               | 3  |      | Chicago               |
| Paskind, Jacob                                                                               | 2  |      | Chicago               |
| Peters, Harry Emerson                                                                        | 4  | (SS) | Chicago               |
| Peterson, Edwin                                                                              | 4  | (SS) | Rockford              |
| Peterson, Harry Michael                                                                      | 2  |      | Chicago               |
| Peterson, Ralph Waldo                                                                        | 2  |      | Chicago               |
| Pfeifer, Andrew Laemann                                                                      | 4  | (SS) | Sheboygan Falls, Wis. |
| Phillips, Alexander Harold                                                                   | 4  | (SS) | Lucknow, Ont.         |
| Pierzynski, Thaddeus Stanley                                                                 | 4  | (SS) | Chicago               |
| Pilot, Isadore                                                                               | 2  |      | Chicago               |
| Pinkerton, Charles Clifford                                                                  | 3  |      | Pawnee City, Nebr.    |
| Pino, Ralph Harrison                                                                         | 2  |      | Ithaca, Mich.         |
| Piro, Victor                                                                                 | 2  |      | Cle Elum, Wash.       |
| Poteet, Floyd Harry                                                                          | sp | SS   | Pawnee City, Nebr.    |
| Preston, William Booker                                                                      | 2  |      | Salt Lake City, Utah  |
| Punche, Albert Emerson                                                                       | 4  |      | Mt. Enterprise, Texas |
| Radabaugh, Rudolph Charles                                                                   | 1  |      | Zumbro Falls, Minn.   |
| Raim, William                                                                                | 2  |      | Chicago               |
| Raman, Henry Benjamin                                                                        | 2  |      | Farmingdale           |
| Regent, Paul Benedict                                                                        | 1  |      | Chicago               |
| Reich, Sigmund                                                                               | 1  |      | Chicago               |
| Reinhardt, Charles Henry                                                                     | 3  | (SS) | Chicago               |
| Rensch, Otto Bismark                                                                         | 4  | (SS) | Ottawa                |
| Richardson, Francis Allen, A.B.,<br>B.S. (Harvard Univ.) 1896<br>M.D. (Baltimore Univ.) 1911 | 4  |      | Boston, Mass.         |
| Richert, Henry                                                                               | 4  |      | Goessel, Kans.        |
| Riley, William Joseph                                                                        | 4  | (SS) | East Chicago, Ind.    |
| Robbins, Douglas Ford                                                                        | 4  |      | Mason City, Ia.       |
| Robinson, Russell Dean                                                                       | 4  |      | Morgan Park           |
| Rogers, Cyril Henry                                                                          | sp |      | Chicago               |
| Rosenzweig, Isadore Marcu                                                                    | 1  |      | Chicago               |
| Roth, Jesse Henry                                                                            | 3  |      | Chicago               |
| Roushausen, Clara (Mrs)                                                                      | sp |      | Chicago               |
| Rowland, Samuel Joy                                                                          | 2  | (SS) | Sunnyside, Wash.      |
| Roy, James N                                                                                 | 2  |      | Providence, R. I.     |
| Royster, Hallace Rector                                                                      | 1  |      | Argo                  |
| Saha, Pramathanath                                                                           | 3  |      | Calcutta, India       |
| Salpas, Spero                                                                                | 1  |      | Chicago               |
| Salzman, Harry Arthur                                                                        | 4  | (SS) | Chicago               |
| Salzman, Martha                                                                              | sp |      | Switzerland           |
| Sanders, George Edward                                                                       | 1  |      | Champaign             |
| Sandroek, George Paul                                                                        | 2  | (SS) | Watertown, Wis.       |
| Sathe, Marcus Roy                                                                            | 3  |      | Jackson, Minn.        |
| Savitsky, Louis                                                                              | 2  |      | Chicago               |
| Schick, Francis Joseph                                                                       | 3  | (SS) | Chicago               |
| Schiele, Richard Frederick                                                                   | 3  |      | Joliet                |
| Schiff, Nathan Samuel                                                                        | 2  |      | New York, N. Y.       |
| Schroeder, Frederick Henry                                                                   | 3  |      | Chicago               |
| Schulberg, Peter Arthur                                                                      | 4  |      | Gibbon, Minn.         |
| Schultze, Paul                                                                               | 1  |      | Chicago               |
| Seidler, Leon                                                                                | 4  | (SS) | Chicago               |
| Seilen, Joseph                                                                               | 3  | (SS) | Chicago               |
| Seiwerth, Walter Scott                                                                       | 3  |      | Chicago               |
| Selby, Claude A                                                                              | 4  | (SS) | North Platte, Nebr.   |
| Seletz, Albert                                                                               | 2  |      | Chicago               |
| Senescall, Cleve Ridlon                                                                      | 3  | (SS) | Ortonville, Minn.     |
| Sered, Harry                                                                                 | 1  |      | Milwaukee, Wis.       |
| Severson, James Melvin                                                                       | 2  |      | Deerfield, Wis.       |
| Sharp, Jeremy Joseph                                                                         | 3  |      | Mill Creek, Ind.      |
| Shaw, Edith Marian                                                                           | 1  |      | Peru, Nebr.           |
| Shell, Arthur Edwin                                                                          | 3  |      | Clinton               |
| Short, Roy Davis                                                                             | 2  | (SS) | Whitehall             |

|                                                    |    |      |                         |
|----------------------------------------------------|----|------|-------------------------|
| Silverstein, Willis Irving                         | 2  |      | Chicago                 |
| Simmonds, Walter Edward                            | 4  |      | Bristol, England        |
| Simons, Neal S                                     | 4  |      | Chicago                 |
| Small, James Craig, B.S. (Pennsylvania Coll.) 1911 | 1  |      | Chambersburg, Pa.       |
| Smart, Clarence Earl                               | 3  |      | New Lisbon, Wis.        |
| Smith, Dean Stanley                                | 3  |      | River Falls, Wis.       |
| Smith, Lloyd Emerson                               | 2  |      | Marietta, Wis.          |
| Sombito, Feliciano Cano                            | 4  |      | Philippine Islands      |
| Spiering, Arthur Kern                              | 2  |      | Fond du Lac, Wis.       |
| Spiro, Julius                                      | 4  |      | Chicago                 |
| Staib, Henry Albert                                | 3  |      | Bartlett                |
| Stein, William Frederick                           | 3  |      | Cisne                   |
| Stern, Jacob                                       | 2  |      | Chicago                 |
| Stern, Louis Henry                                 | 2  |      | Chicago                 |
| Stern, Simon                                       | 3  |      | Chicago                 |
| Stevenson, Augustus                                | 1  |      | Champaign               |
| Stevenson, James                                   | 1  |      | Chicago                 |
| Stolfa, Ladislav                                   | 2  |      | Chicago                 |
| Stuart, Christopher Brown                          | 3  |      | Springfield             |
| Sullivan, Noreen Marie                             | 2  |      | Chicago                 |
| Sullivan, Thomas John, Jr.                         | 3  | (SS) | Chicago                 |
| Sutch, Armand Kredel                               | 1  |      | Chicago                 |
| Sutherland, Jacob Marion                           | 3  |      | McKinney, Texas         |
| Swackhamer, Walter Byrd                            | 4  |      | Union, Oregon           |
| Swinehart, Bertram Oliver                          | 1  |      | Cooksville              |
| Sykes, Newman Marion                               | 1  |      | Decatur, Ala.           |
| Syversen, Bien Claude                              | 3  | (SS) | Westby, Wis.            |
| Szwajkart, Adam Leo                                | 1  |      | Chicago                 |
| Talbot, Edwin Robert                               | 3  |      | Joliet                  |
| Taub, Samuel Jack                                  | 2  |      | Chicago                 |
| Taylor, Arthur Clyde                               | 1  |      | Wilmette                |
| Thiell, James Edward                               | 3  |      | Fond du Lac, Wis.       |
| Thomas, Elmer Merrill                              | 4  | (SS) | Big Rock                |
| Thompson, Anna Dorthéa                             | sp | SS   | Chicago                 |
| Thompson, Rollin David                             | 4  | (SS) | Black River Falls, Wis. |
| Tiedeman, Ian David                                | 2  |      | De Sota, Wis.           |
| Timm, Harry Emil Louis                             | 3  |      | Crown Point, Ind.       |
| Tomlin, Russell                                    | 2  | (SS) | Easton                  |
| Tomsu, Charley Louis                               | 2  |      | Renfrow, Okla.          |
| Toothaker, Joel Edwin                              | 2  |      | Sandoval                |
| Traxler, Paul Scoville                             | 4  |      | Hartford, Mich.         |
| Ungherini, Vezio Oliver                            | 4  |      | Bessemer, Mich.         |
| Van Kirk, John Albert                              | 4  |      | Leiters Ford, Ind.      |
| Vander Kloot, Albert                               | 3  | (SS) | Chicago                 |
| Van Slyke, Floyd H                                 | 2  |      | Benson, Minn.           |
| Vartanian, Mandiros Bekrow                         | 2  |      | Harpoot, Turkey         |
| Varzhabedian, Mihrain A, A.B. (Antolia Coll.) 1911 | 3  |      | Erbaa, Turkey           |
| Volberding, Harry Henry                            | 3  | (SS) | Bensonville             |
| Wagoner, Amanda Irene                              | 3  | (SS) | Delphi, Ind.            |
| Wallingsford, William Jewell                       | 4  | (SS) | Chicago                 |
| Warrick, W. Carlton                                | 4  |      | Garrett, Ind.           |
| Wayland, Thomas Alfred                             | 3  |      | Macomb                  |
| Webb, Harvey Edmund                                | 4  | (SS) | Aberdeen, S. D.         |
| Wedge, Athol Horatio                               | 2  |      | Waupun, Wis.            |
| Weightman, Marian A                                | 3  |      | Carpentersville         |
| Welch, Roland Aretus                               | 3  | (SS) | Battle Creek, Mich.     |
| Welden, Ned Amos                                   | 1  |      | Wheaton                 |
| Wencke, Carl George                                | 4  |      | Newcastle, Ind.         |
| Wermerskirchen, Margaret Dorothy                   | sp | SS   | Milwaukee, Wis.         |
| Whitby, Ferdinand Demando, A.B.                    | 4  |      | Washington, D. C.       |
| Wiese, Milton Arthur                               | 4  | (SS) | Chicago                 |
| Wiese, Walter Fred                                 | 3  |      | Milwaukee, Wis.         |
| Wilkins, Merritt Owen                              | 1  |      | Paris                   |
| Willander, Alfred Arthur                           | 3  | (SS) | Winthrop, Minn.         |
| Williams, Mary Edith, A.B., A.M., 1904, 1906       | 1  |      | Chicago                 |



|                          |   |                    |
|--------------------------|---|--------------------|
| Wilson, Harry Hulth      | 2 | Marshalltown, Ia.  |
| Wilson, Marcus Bryed     | 2 | Huron, S. D.       |
| Wiseman, Claude Ernest   | 4 | Goshen, Ind.       |
| Wojniak, Frank           | 1 | Chicago            |
| Wolf, Paul Jacob         | 2 | Chicago            |
| Woodward, Ernest Patrick | 4 | Great Falls, Mont. |
| Woolley, Walter Anthony  | 3 | England            |

## COLLEGE OF DENTISTRY

| NAME                      | YEAR* | RESIDENCE           |
|---------------------------|-------|---------------------|
| Anderman, Sanford         | 1     | Chicago             |
| Baumstein, Michael        | 2     | Chicago             |
| Berman, Harold H          | 1     | Chicago             |
| Bernstein, Nathan Morris  | 1     | Chicago             |
| Blair, Maurice Isadore    | 1     | Chicago             |
| Blaine, Luther Lincoln    | 1     | Douglas, Wyo.       |
| Blum, Nathan William      | 3     | Chicago             |
| Bonney, Thomas Chew       | 1     | Aberdeen, S. D.     |
| Bortz, Louis William      | 2     | La Porte, Ind.      |
| Brogmus, Ernest J P       | 2     | Chicago             |
| Cass, Clarence H          | 3     | Chicago             |
| Cisar, George W           | 3     | Chicago             |
| Coltman, Harry Dean       | 1     | Chicago             |
| Condit, Harold            | 1     | Chicago             |
| Coverly, William E        | 3     | Jacksonville        |
| Deist, Milzor William     | 2     | Harper, Kans.       |
| Dierks, George W          | 2     | Toledo, Ohio        |
| DiCosola, Anthony         | 1     | Chicago             |
| Doktorsky, Philip         | 3     | Chicago             |
| Felcher, George L         | 2     | Chicago             |
| Felz, John Henry          | 1     | Chicago             |
| Fink, Herman R            | 2     | Chicago             |
| Fraser, Ruple             | 1     | Bessemer, Mich.     |
| Gallie, Donald M          | 2     | Wilmette            |
| Goodfriend, Samuel H      | 2     | Chicago             |
| Gorman, Joseph S          | 3     | Chicago             |
| Gunnerson, Chester A      | 1     | Hallock, Minn.      |
| Harnick, Harry M          | 1     | Chicago             |
| Hefter, Charles Joseph    | 1     | Chicago             |
| Heimer, Roy Andrew        | 3     | Stewartville, Minn. |
| Hill, Clarence E          | 2     | Pascagola, Miss.    |
| Hinch, Leslie D           | 3     | Chicago             |
| Hood, Sidney T            | 3     | Chicago             |
| Hough, John F             | 2     | Chicago             |
| Humphrey, Robert I        | 1     | Chicago             |
| Hunsaker, Robert Earl     | 1     | Jonesboro           |
| Hussey, Frank Arthur      | 3     | Des Moines, Ia.     |
| Jack, Samuel Albert       | 3     | Chicago             |
| Jahnke, Herbert Fred      | 1     | Chicago             |
| Jesser, Jacob             | 1     | Chicago             |
| Johnson, Ernest Garfield  | 1     | Hawley, Minn.       |
| Kahn, Charles S           | 3     | Chicago             |
| Kaplan, Jacob H           | 3     | Minneapolis, Minn.  |
| Koch, Lawrence M          | 1     | Chicago             |
| Koetters, Edward F        | 3     | Quincy              |
| Kohn, Morris              | 1     | Chicago             |
| Kousnetz, Louis B         | 1     | Chicago             |
| Krejci, Edward J          | 2     | La Porte, Ind.      |
| Lincoln, Richard Grant    | 1     | Chicago             |
| Loewenthal, Louis C       | 1     | Chicago             |
| McCornell, Charles Joshua | 1     | Chicago             |
| Mitchell, George H        | 3     | Clinton             |
| Moldt, George C           | 3     | Chicago             |
| Myre, Herman O            | 1     | Hallock, Minn.      |

\*Abbreviations: 1, first year; 2, second year; 3, third year.

|                             |   |                     |
|-----------------------------|---|---------------------|
| Orloff, Louis D             | 1 | Chicago             |
| Person, Allgott Gustaf      | 1 | Chicago             |
| Plachota, John J            | 3 | Chicago             |
| Playman, Harold Lemoine     | 1 | Stevens Point, Wis. |
| Puffer, Charles L           | 3 | La Grange           |
| Reiseman, Henry             | 1 | Chicago             |
| Richter, Camilla            | 1 | Chicago             |
| Saubert, Arthur F           | 1 | Kaukauna, Wis.      |
| Sauer, Clarence J           | 1 | Amboy               |
| Schroeder, Walter H         | 2 | Chicago             |
| Schlies, Edward William     | 3 | Chicago             |
| Shay, William G             | 3 | Chicago             |
| Simmons, Corwin J           | 3 | Faukland, S. D.     |
| Smith, Peooer Wheeler       | 1 | Fort Totten, N. D.  |
| Smith, Barnett Quillen      | 1 | Carrollton, Mo.     |
| Sommerfield, Nate           | 2 | Chicago             |
| Stark, Erwin O              | 1 | Chicago             |
| Steinberg, A David          | 2 | Chicago             |
| Stevens, Michael Vincent    | 3 | Humboldt, S. D.     |
| Stevens, Milan D            | 3 | Redfield, S. D.     |
| Stevens, Herbert Flower     | 3 | Redfield, S. D.     |
| Tarkovsky, Leo Abraham      | 1 | Chicago             |
| Taylor, Herbert William     | 3 | Chicago             |
| Tommerson, Leif Norman      | 3 | Grand Meadow, Minn. |
| Tomita, Teiche              | 3 | Miwa, Japan         |
| Turner, W Earl              | 1 | Wheatland, N. D.    |
| Twohey, Frank J             | 3 | Rochester, Minn.    |
| Umbenhauer, Ellery          | 3 | Montpelier, Ohio    |
| Upp, Roscoe William         | 1 | Chicago             |
| Welch, Harold William       | 1 | Chicago             |
| Werninghaus, William Ernest | 2 | Melrose Park        |
| White, Leland J             | 2 | Chicago             |
| Williams, Hubberd S         | 1 | Columbia, Mo.       |
| Wood, Max                   | 1 | Charlotte, Mich.    |
| Zajicek, Edwin C            | 3 | Chicago             |

## SCHOOL OF PHARMACY

| NAME                                                     | COURSE* | RESIDENCE        |
|----------------------------------------------------------|---------|------------------|
| Allen, Monte                                             | P 1     | Grayslake        |
| Allman, Kenneth Frederick                                | P 1     | Rensselaer, Ind. |
| Aman, Joseph Michael                                     | P sp    | Chicago          |
| Anderson, Albert Franklin                                | P 2     | St. Johns, Ariz. |
| Anderson, Elwood                                         | P sp    | Ephraim, Utah    |
| Anderson, LeRoy Eugene                                   | P sp    | Moline           |
| Anderson, Richard Joel                                   | P 1     | Chicago          |
| Anderson, Walter Emanuel                                 | P 1     | Chicago          |
| Aron, Fannie Lillian                                     | P 1     | Chicago          |
| Baird, Frank, Jr.                                        | P sp    | Harvard          |
| Baker, Sam Leon                                          | P 1     | Gary, Ind.       |
| Bakkers, Arthur                                          | P 1     | Chicago          |
| Barone, Christopher                                      | P 1     | Chicago          |
| Barr, Harry Andrew, A.B. (William & Vashti College) 1913 | P 1     | Aledo            |
| Bate, Harry Duddly                                       | P 2     | Chicago          |
| Becker, Edna                                             | P 2     | Davenport, Ia.   |
| Beckert, LeRoy                                           | P sp    | Chicago          |
| Bianco, Mike Robert                                      | P 1     | DuQuoin          |
| Blahnik, Emil Albert                                     | P 1     | Chicago          |
| Bland, Frederick Vincent                                 | P sp    | Chicago          |
| Bosch, August Christopher                                | P 2     | Gratiot, Wis.    |
| Boucher, Orlando                                         | P 1     | Claypool, Ky.    |
| Bradley, George Chester                                  | P 1     | Auburn           |
| Braude, Leon                                             | P sp    | Chicago          |
| Brauns, Hans William                                     | P sp    | Chicago          |

\*Abbreviations: P, Pharmacy; PC, Pharmaceutical Chemistry; 1, first year; 2, second year; sp, special.



|                                 |      |                       |
|---------------------------------|------|-----------------------|
| Brehm, Leonard Anthony          | P 1  | Farmer City           |
| Brewer, Chester Wellington      | P 1  | Urbana                |
| Brierton, Harold                | P 1  | Dixon                 |
| Brodsky, Dan                    | P sp | Chicago               |
| Broling, Clarence Theodore      | P sp | Chicago               |
| Brown, J Burdette               | P 2  | Tampico               |
| Brown, Louis                    | P 1  | Chicago               |
| Bryant, Floyd Wiley             | P 2  | Elizabeth             |
| Bucke, William Stuhlmann        | P 1  | Chicago               |
| Buckrucker, Walter              | P 1  | Chicago               |
| Bundy, Carroll Edwin            | PC 1 | Sheldon               |
| Butts, Joseph C                 | PC 1 | Chicago               |
| Camp, Arthur Louis              | P sp | Macomb                |
| Canham, George Ernest           | P 2  | Neponset              |
| Cappels, Walter Sol             | P sp | Chicago               |
| Carlson, Herbert Sigfrid Eugene | P 1  | Chicago               |
| Carthan, William Arthur, A.B.   |      |                       |
| (Morris Brown College) 1902     | P 2  | East Macon, Ga.       |
| Ceynowa, Joseph Anton           | P sp | Chicago               |
| Cheney, Albert Merrill          | P sp | Chicago               |
| Clay, Byron Eugene              | P 1  | Lena                  |
| Combacker, Marie Frances, A.B.  |      |                       |
| (Carroll College) 1913          | PC 1 | Elkworth, Wis.        |
| Converse, Lawrence              | P 2  | Chicago               |
| Copeland, Thomas Bragg          | P 1  | Grand Junction, Colo. |
| Corleto, Joseph Frank           | P sp | Chicago               |
| Coultas, Wiley Davenport        | P 1  | Murrayville           |
| Czarnecki, Frank John           | P sp | Chicago               |
| Dahlman, Vernon John            | P sp | Chicago               |
| Dahms, Arthur August            | P sp | Chicago               |
| Dancey, John Leonard            | P sp | Malden                |
| Datz, Charles Percival          | P 1  | Chicago               |
| Davis, Guy Brooks               | P 1  | Abingdon              |
| Davis, Ray Robbins              | P 1  | Abingdon              |
| DeKoker, Abraham                | P 1  | Chicago               |
| DeRosa, Anthony                 | P sp | Chicago               |
| DeWitt, Charles Roy             | P sp | Pocatello, Idaho      |
| Diesner, Herbert Otto           | P 1  | Maywood               |
| Drais, Grover                   | P 1  | Onawa, Ia.            |
| Eberly, Harry Leo               | P 1  | Aurora                |
| Edgett, Paul Wright             | PC 2 | Earlville             |
| Endee, Walter Arthur            | P 2  | Chicago               |
| Erickson, Arthur Henry          | P sp | Chicago               |
| Etnyre, Edward Lee              | P 1  | Oregon                |
| Ewing, Theodore Madison         | P 2  | Neoga                 |
| Faulkner, Raymond Earl          | P 1  | Fulton                |
| Ferring, Alphonse Peter         | P sp | New Vienna, Ia.       |
| Fessler, Harold Earl            | P 1  | West Chicago          |
| Fisler, Oscar                   | P 2  | Chicago               |
| Foreman, Daniel                 | P sp | Chicago               |
| Fox, Milton Mitchell            | P sp | Chicago               |
| French, Sidney Byington         | P 1  | Lake Geneva, Wis.     |
| Garrity, J Gerald               | P 2  | Spring Valley         |
| Garside, James William          | P 2  | Wyoming               |
| Geispitz, Victor                | P 1  | Chicago               |
| Giblin, John Norbet             | P 1  | Chicago               |
| Glenn, Jacob F, LL.B. (Univ.    |      |                       |
| Iowa) 1901                      | P 1  | Chicago               |
| Goldman, Benjamin               | P 1  | Chicago               |
| Goldstine, Harry                | P sp | Chicago               |
| Gorham, Louis Andrew            | P 1  | Chicago               |
| Gouwens, Peter                  | P 2  | Chicago               |
| Gray, Martin Paul               | P 1  | Allendale             |
| Grund, Charles Hugo, Jr.        | P sp | Chicago               |
| Haffner, Louis Leo              | P 1  | Bloomington           |
| Haines, Harry Edward            | P 2  | Farmer City           |
| Hamrak, Mike                    | P sp | Witt                  |
| Hanichen, Carl William          | P sp | Chicago               |
| Hansen, Arthur Leon             | P 1  | Chicago               |

|                            |      |                      |
|----------------------------|------|----------------------|
| Hansen, Harold Walter      | P 2  | Lake Mills, Wis.     |
| Harden, Leslie Eugene      | P sp | Rockefeller          |
| Harris, Walter Arthur      | P 1  | Chicago              |
| Havranek, Charles Joseph   | P sp | Chicago              |
| Hawthorne, Ralph           | P 1  | Enfield              |
| Hayward, Claude Henry      | P sp | Chicago              |
| Hedberg, Charles Hilding   | P sp | Chicago              |
| Heimeshoff, John Theodore  | P sp | Chicago              |
| Hejna, George              | P sp | Chicago              |
| Hildebrandt, Philip Ervin  | P 2  | Lake Mills, Wis.     |
| Hirschfield, Harold        | P 1  | Chicago              |
| Hladik, James              | P sp | Chicago              |
| Hlavaty, Joseph            | P 1  | Chicago              |
| Hojnacki, Sylvester Henry  | P 1  | Chicago              |
| Hollinshead, Elwood Jay    | P 2  | Morrison             |
| Holmes, Bert Edward        | P sp | Chicago              |
| Huebner, Charles Lawrence  | P sp | Chicago              |
| Huhn, William              | P sp | Chicago              |
| Hunter, Cecil Wesley       | P 1  | Pesotum              |
| Huston, Hubert Spangler    | P 1  | Carthage             |
| Jacobson, Michael          | P 1  | Chicago              |
| Jaglowski, Anton Sylvester | P sp | Chicago              |
| Jindrich, George William   | P 1  | Chicago              |
| Johnson, Archie Kirkwood   | P 1  | Joliet               |
| Johnson, Harry Ernest      | P 2  | Rockford             |
| Jones, Chance Charles      | P 1  | Shipman              |
| Jordan, Gill               | P 2  | Chicago              |
| Juska, Anton               | PC 1 | Chicago              |
| Kakacek, Joseph John       | P 1  | Chicago              |
| Kanta, Harry               | P 1  | Chicago              |
| Kartanas, Anthony George   | P sp | Chicago              |
| Kaspar, William John       | P 1  | Chicago              |
| Kaucky, Emanuel            | P 1  | Morgan Park          |
| Keefrey, Edward William    | P sp | Streator             |
| Kehr, Floyd A              | P 1  | Dixon                |
| Kochanski, Stephen Bernard | P sp | Chicago              |
| Korschak, James            | P sp | Chicago              |
| Kral, Edward Joseph        | P 1  | Chicago              |
| Krebs, Rudolph             | P 1  | Milford              |
| Kremer, Louis Martin       | P sp | Chicago              |
| Krueger, Armin Charles     | P sp | Petersburg           |
| Kuecks, Willis Carl        | P sp | Pekin                |
| Kuklinski, John Stanislaus | P sp | Chicago              |
| Kvasnicka, Joseph Benjamin | P 1  | Chicago              |
| Lane, Elmer Chester        | P 2  | Kankakee             |
| Langel, Harry Charles      | P 1  | Robinson             |
| Larson, Clarence Oscar     | P sp | Rock Island          |
| Lash, Abraham Lazar        | P 1  | Chicago              |
| Lavieri, Genario Dominici  | PC 2 | Chicago              |
| Leckband, Theodore August  |      |                      |
| Joseph                     | P 1  | Grand Mound, Ia.     |
| Lee, Wan Soo               | P 1  | Seoul, Korea         |
| Leib, Fred Lehman          | P 2  | Bolcom               |
| Lesko, Charles James       | P 1  | Chicago              |
| Levinowitz, Leopold        | P sp | Chicago              |
| Lewis, Edward Roy          | P sp | Witt                 |
| Lisec, Otto                | P sp | Chicago              |
| Litson, Will Carleton      | P 1  | Pontiac              |
| Lofgren, David             | P 1  | Chicago              |
| Lewis, Benjamin            | P 1  | Chicago              |
| McBride, George William    | P 2  | Paw Paw              |
| McCourt, Hugh Frank        | P sp | Macomb               |
| McKenty, Arthur Henry      | P 1  | Chicago              |
| Malkewicz, Stephen Edwin   | P 1  | Chicago              |
| Marofske, Alexander Edward | P 1  | Chicago              |
| Marr, Leo George           | P sp | Kankakee             |
| Marriott, Bates            | P 1  | Galesburg            |
| Marshall, Bruce Scott      | P 1  | Chicago              |
| Masty, Alexander Joseph    | P 1  | Iron Mountain, Mich. |



|                                 |    |    |                       |
|---------------------------------|----|----|-----------------------|
| Mayzels, Henry                  | P  | sp | Chicago               |
| Meinzen, Arnold Ernest          | P  | sp | Ft. Wayne, Ind.       |
| Mendelsohn, Paul Israel         | P  | 2  | Chicago               |
| Merschatt, Richard William      | P  | 2  | Chicago               |
| Metz, Harry                     | P  | sp | Chicago               |
| Miehlich, William Peter         | P  | sp | Chicago               |
| Miller, David Lyman             | P  | 2  | Carmi                 |
| Miller, William N               | PC | 1  | Waterloo, Ia.         |
| Miller, Harry                   | P  | 1  | Chicago               |
| Mitchell, Sherman Edward        | P  | sp | Chicago               |
| Morava, George Anton            | P  | sp | Chicago               |
| Mordente, Anthony Francis       | P  | 1  | Chicago               |
| Mueller, Franklin Christopher   | P  | 1  | Jefferson, Wis.       |
| Myerson, Abraham                | P  | 2  | Chicago               |
| Nelson, Hans Albin              | P  | 1  | Peoria                |
| Nelson, James Cullent           | P  | 1  | Houston, Texas        |
| Nemec, George Edward            | P  | sp | Chicago               |
| Neville, Mark Eldon             | P  | 1  | Grayslake             |
| Niemeyer, Frank Charles         | P  | 1  | Galena                |
| Nowak, William                  | P  | sp | Chicago               |
| Obermiller, Oswald Edward Fred  | P  | 1  | Galena                |
| Oetzel, Joe Karnes              | P  | 2  | Danville              |
| Olson, George Ray               | P  | sp | Chicago               |
| Orr, Charles Clarence           | P  | 2  | Chicago               |
| Paprocki, John Henry            | P  | sp | Chicago               |
| Pavek, Joseph Emil              | P  | 1  | Chicago               |
| Pearce, Irving Fitch            | P  | 2  | Chicago               |
| Pelc, Joseph                    | PC | 1  | Chicago               |
| Pelikan, Fred Oldrich           | P  | 1  | Chicago               |
| Person, Frank Daniel            | P  | 1  | Chicago               |
| Phillips, Thomas Francis        | P  | sp | Springfield           |
| Poli, Domingo                   | P  | 1  | Guayama, Porto Rico   |
| Protasewicz, Jennie             | P  | 1  | Chicago               |
| Quartetti, Leonard              | P  | 1  | Chicago               |
| Raycroft, Joseph Winfred        | P  | 1  | Springfield           |
| Reed, Earl LeRoy                | P  | 1  | Robinson              |
| Reed, Robert Charles            | P  | 1  | Quincy                |
| Reid, Ambrose                   | P  | sp | Alvarado, Va.         |
| Reid, Roswell                   | P  | sp | Alvarado, Va.         |
| Rey, Young                      | P  | 1  | Soon Chun, Korea      |
| Ricebaum, Joseph                | P  | sp | Chicago               |
| Riemer, Edwin Robert            | P  | 1  | Chicago               |
| Ritter, William John            | P  | 1  | Mattoon               |
| Ritzman, Robert Bruce           | P  | 1  | Orangeville           |
| Robertson, Monroe               | P  | 1  | Decatur               |
| Rose, Leonard                   | P  | 2  | Milwaukee, Wis.       |
| Rozanski, Leo Philip            | P  | sp | Chicago               |
| Rueckert, Elmer Edward          | P  | 2  | Lake Mills, Wis.      |
| Sadilek, William                | P  | sp | Chicago               |
| St. Pierre, Alfred Joseph       | P  | sp | Chicago               |
| Salinas, Miguel Saavedra Garcia | P  | 1  | Arrogo, Porto Rico    |
| Schemmel, Alfred Lawrence       | P  | 1  | Dyersville, Ia.       |
| Schmid, Harold                  | P  | 2  | Chicago               |
| Schoen, Edward                  | P  | 1  | Chicago               |
| Schreiner, Albert, Jr.          | PC | 2  | Batavia               |
| Schultz, Alfred Edward          | P  | sp | Waterman              |
| Schwaber, Hanna Myra            | PC | 1  | Chicago               |
| Scruggs, Edward Palmer          | P  | 1  | Livingston, Ala.      |
| Sikyta, Henry William           | P  | 1  | Chicago               |
| Simmons, Bayard Edwin           | P  | 1  | Chicago               |
| Simmons, Clarence Waldo         | P  | 1  | Chicago               |
| Sladky, George Joseph           | P  | 1  | Hawthorne             |
| Slinkard, Ernest Lee            | P  | 1  | Grand Junction, Colo. |
| Solomon, Joseph                 | P  | 1  | Chicago               |
| Spalding, Clifford Ross         | P  | 1  | Clinton, Iowa         |
| Stawicki, Thaddeus              | P  | 1  | Chicago               |
| Stech, Frank James              | P  | sp | Chicago               |
| Strain, Stewart                 | P  | 2  | Chicago               |
| Stulik, George                  | PC | 2  | Chicago               |

|                              |           |           |                       |
|------------------------------|-----------|-----------|-----------------------|
| Subert, George Anton         | <i>P</i>  | <i>sp</i> | Chicago               |
| Szajek, Frank                | <i>P</i>  | <i>sp</i> | Chicago               |
| Tanquary, John Hansford      | <i>P</i>  | <i>1</i>  | Bellmont              |
| Taylor, Willis Jones         | <i>P</i>  | <i>sp</i> | Chicago               |
| Thompson, Ralph Harold       | <i>P</i>  | <i>2</i>  | Earlville             |
| Throckmorton, Lloyd Earl     | <i>P</i>  | <i>sp</i> | Peoria                |
| Tischer, Elmer Albert        | <i>P</i>  | <i>sp</i> | Peoria                |
| Todd, Harold Andrew          | <i>P</i>  | <i>2</i>  | Grand Junction, Colo. |
| Ton, Adrian                  | <i>P</i>  | <i>2</i>  | Chicago               |
| Trachman, Charles            | <i>P</i>  | <i>2</i>  | Ransom                |
| Vale, Leland LeMarr          | <i>P</i>  | <i>1</i>  | Henry                 |
| VanderBogart, Walter Alanson | <i>PC</i> | <i>1</i>  | Wilmington            |
| Vaupell, George Frederick    | <i>PC</i> | <i>2</i>  | Chicago               |
| Vavra, Clio                  | <i>P</i>  | <i>2</i>  | Chicago               |
| Vondrasek, Frank Joseph      | <i>P</i>  | <i>2</i>  | Chicago               |
| Waggoner, Athol Leonard      | <i>P</i>  | <i>1</i>  | Lynchburg, Tenn.      |
| Waldo, Reginald Heber        | <i>P</i>  | <i>2</i>  | Grand Junction, Colo. |
| Walters, John Remington      | <i>P</i>  | <i>sp</i> | Chicago               |
| Warzynski, Ladislaus Joseph  | <i>P</i>  | <i>2</i>  | Chicago               |
| Waurzinski, Chester Thaddeus | <i>P</i>  | <i>sp</i> | Chicago               |
| Wilhelm, Werner Henry        | <i>P</i>  | <i>1</i>  | Pullman               |
| Wischnia, Louis              | <i>P</i>  | <i>1</i>  | Chicago               |
| Wisniewski, Frank Edward     | <i>P</i>  | <i>1</i>  | Chicago               |
| Woelffer, Roy William        | <i>P</i>  | <i>1</i>  | Lake Mills, Wis.      |
| Woods, Archie MacLean        | <i>P</i>  | <i>1</i>  | Chicago               |
| Wurtzburg, Joseph Edward     | <i>P</i>  | <i>sp</i> | Chicago               |
| Zarobsky, Frank James        | <i>P</i>  | <i>sp</i> | Chicago               |



# DEGREES CONFERRED

1913

## THE UNDERGRADUATE COLLEGES

DEGREES OF BACHELOR OF ARTS, BACHELOR OF LITERATURE,  
BACHELOR OF SCIENCE, AND BACHELOR OF MUSIC

*Conferred June 11, 1913*

HELEN ABBOTT, Bachelor of Arts (Literature and Arts)  
SETH DAVID ABBOTT, Bachelor of Science (Agriculture)  
LILLIAN MAY ALBAND, Bachelor of Arts (Literature and Arts)  
ROSCOE HARRISON ALBRIGHT, Bachelor of Science (Civil Engineering)  
HARRY GLEN ALDRICH, Bachelor of Science, (Architecture)  
LOUIS ALLAN, Bachelor of Arts (Literature and Arts\*)  
RUBY LETITIA ALLEN, Bachelor of Arts (Literature and Arts)  
CARL WALTER ALLISON, Bachelor of Arts (Science)  
CLARENCE FELIX ANDERSON, Bachelor of Arts (Literature and Arts)  
ISABELLA ANDERSON, Bachelor of Arts (Literature and Arts)  
JAMES BURTON ANDREWS, Bachelor of Science (Agriculture)  
PEACH HELEN ANDREWS, Bachelor of Arts (Literature and Arts)  
WILLIAM ORUS ANDREWS, Bachelor of Science (Civil Engineering)  
NOBEL ARNOLD, Bachelor of Science (Municipal and Sanitary Engineering)  
ALBERT KING ATKINSON, Bachelor of Arts (Science)  
FREDERICK MORTIMER ATKINSON, JR., Bachelor of Arts (Literature and Arts\*)  
CHARLES AUSTIN ATWOOD, Bachelor of Science (Agriculture)  
ROBERT BACK, Bachelor of Science (Ceramic Engineering\*)  
HENRY STILLMAN BADGER, Bachelor of Science (Electrical Engineering)  
ROSCOE EDWARD BAILEY, Bachelor of Science (Electrical Engineering)  
GLENN CLIFFE BAINUM, Bachelor of Arts (Literature and Arts)  
ETHEL MAY BAIRD, Bachelor of Arts (Literature and Arts)  
JULIA MINNETTA BARBER, Bachelor of Arts (Literature and Arts)  
LESLIE CARROLL BARBER, Bachelor of Arts (Literature and Arts)  
HENRY HARRISON BARTELLS, Bachelor of Science (Ceramics\*)  
BARTOW STRONG BASCOMBE, Bachelor of Science (Civil Engineering)  
LOUIS PETER BAUMAN, Bachelor of Science (Agriculture)  
MAURICE ROBERT BEBB, Bachelor of Science (Agriculture)  
MORRIS LOUIS BECKER, Bachelor of Science (Mining Engineering)  
RALPH ANDERSON BENNITT, Bachelor of Science (Civil Engineering)  
FREDERICK EDWARD BERGER, Bachelor of Science (Architecture)  
WALLACE BERGER, Bachelor of Science (Architectural Engineering)  
ROBERT EDWIN BLACKBURN, Bachelor of Science (Agriculture)  
WALTER ARTHUR BLAKESLEE, Bachelor of Science (Mechanical Engineering)  
WILFRED FRANCIS BLATHERWICK, Bachelor of Science (Architecture)  
PAUL THEODORE BOCK, Bachelor of Science (Civil Engineering)  
MARTHA ELIZABETH BONHAM, Bachelor of Arts (Literature and Arts)  
BERTHA ESTELLE BOURDETTE, Bachelor of Arts (Literature and Arts)  
FRANCES JOSEPHINE BOYD, Bachelor of Arts (Literature and Arts)  
BESS BOYERS, Bachelor of Arts (Literature and Arts)  
LUCY CENTER BRADRICK, Bachelor of Arts (Literature and Arts)  
ALEXANDER RUDOLPH BRANDNER, Bachelor of Science (Architecture)  
IRVING MYRON BRAZIER, Bachelor of Science (Agriculture\*)  
WILLIAM JAMES BROADHEAD, Bachelor of Science (Agriculture)

\*With Thesis

EDWIN JOHN BROCKMEYER, Bachelor of Science (Architectural Engineering)  
 FRANCIS ANDREW BROWN, Bachelor of Science (Architecture)  
 JAMES FEARON BROWN, Bachelor of Arts (Literature and Arts)  
 MARY VIOLA BRUNER, Bachelor of Arts (Literature and Arts)  
 ARTHUR MAXWELL BRUNSON, Bachelor of Science (Agriculture)  
 JOHANNES PETRUS DU BUISSON, Bachelor of Arts (Science)  
 EDWARD WESLEY BULLARD, Bachelor of Science (Civil Engineering)  
 NIXON LAWRENCE BUNN, Bachelor of Science (Civil Engineering)  
 STEPHEN WILLIAM BURSTROM, Bachelor of Science (Electrical Engineering)  
 CLARENCE FLETCHER BURWASH, Bachelor of Science (Agriculture)  
 MABEL ESTELLA BURWASH, Bachelor of Arts (Literature and Arts)  
 MARY GLADYS BURWASH, Bachelor of Arts (Literature and Arts)  
 MRS. VERA KERKER BUSEY, Bachelor of Music\*  
 ROLAND GLENN BUTLER, Bachelor of Science (Mechanical Engineering)  
 GLEN DOUGLAS BUTZER, Bachelor of Science (Civil Engineering)  
 HELEN CECILIA BYRNE, Bachelor of Arts (Literature and Arts)  
 MRS. ELIZA MARILLA WRIGHT-CANADAY, (as of the class of 1885), Bachelor of  
 Literature (Literature and Arts)  
 WILBUR JEROME CARMICHAEL, Bachelor of Science (Agriculture)  
 WILLIAM CHARLES CARR, Bachelor of Science (Agriculture)  
 SARA BLANCHE ELIZABETH CARTWRIGHT, Bachelor of Arts (Science)  
 VICTOR HAROLD CARTWRIGHT, Bachelor of Arts (Science)  
 JOHN RUGGLES CASE, Bachelor of Science (Agriculture)  
 FLORENCE ADELAIDE CASSINGHAM, Bachelor of Arts (Literature and Arts)  
 HUBERT ARTHUR CATE, Bachelor of Science (Agriculture)  
 CONRAD LEE CATTRON, Bachelor of Science (Agriculture)  
 THOMAS HEZEKIAH CATTRON, Bachelor of Science (Electrical Engineering)  
 BRAHMA NATH CHATTERJEE, Bachelor of Science (Agriculture)  
 JOSEPH HARVEY CHECKLEY, Bachelor of Science (Agriculture)  
 HUANG CHEN, Bachelor of Science (Chemical Engineering\*)  
 KING YAOU CHEN, Bachelor of Science (Chemistry\*)  
 HOMER ELDON CHENOWETH, Bachelor of Arts (Science)  
 CO-CHING CHU, Bachelor of Science (Agriculture)  
 VEE GIH CHU, Bachelor of Science (Chemical Engineering\*)  
 CLARENCE FARNSWORTH CHURCHILL, Bachelor of Arts (Science)  
 WILLIAM HENRY CLARE, Bachelor of Science (Architecture)  
 CLIFTON WIRT CLARK, Bachelor of Arts (Science)  
 ERNEST MCCHESENEY CLARK, Bachelor of Science (Agriculture)  
 ARTHUR WILLIAM CLAUSSEN, Bachelor of Science (Mechanical Engineering)  
 HAROLD DUDLEY CLAYBERG, Bachelor of Arts (Science)  
 KATHLEEN MARCELLA CLYNE, Bachelor of Arts (Literature and Arts)  
 HARRY RUSLING COCHRAN, Bachelor of Science (Chemical Engineering\*)  
 ELMER WASHBURN COFFEY, Bachelor of Science (Electrical Engineering)  
 GUERNEY HILL COLE, Bachelor of Science (Electrical Engineering)  
 ROBERT MCFARLAND COLE, Bachelor of Science (Chemical Engineering\*)  
 JAMES HENRY COLOMBO, Bachelor of Arts (Literature and Arts)  
 JAY AUSTIN COLVIN, Bachelor of Arts (Literature and Arts\*)  
 ELEANOR MARIE COMBE, Bachelor of Arts (Literature and Arts)  
 JOSEPHINE V CONLEY, Bachelor of Arts (Literature and Arts)  
 CASSIUS BANNISTER CONRAD, Bachelor of Arts (Literature and Arts\*)  
 META CONSOER, Bachelor of Arts (Literature and Arts)  
 HERBERT HARPER CONSTANT, Bachelor of Science (Electrical Engineering)  
 HARRY B COOLEY, Bachelor of Science (Architectural Engineering)  
 NORMA COOLEY, Bachelor of Arts (Literature and Arts)  
 ELWIN RAY COOLIDGE, Bachelor of Science (Electrical Engineering)  
 WALTER ALLEN COPE, Bachelor of Science (Agriculture)  
 MURRAY COPENHAVER, Bachelor of Science (Agriculture\*)  
 GEORGE RAYMOND CORKE, Bachelor of Science (Electrical Engineering)  
 HOWARD CORLEY, Bachelor of Science (Civil Engineering)  
 FREDERICK BOYDEN CORTIS, Bachelor of Arts (Literature and Arts)  
 HARLAND WINN CORZINE, Bachelor of Science (Electrical Engineering)  
 LLOYD COSTAR, Bachelor of Science (Agriculture)  
 HAZEL IONA CRAIG, A.B., 1910, Bachelor of Music\*  
 CHARLES JAMES CRAIGMILE, Bachelor of Science (Civil Engineering)  
 HAROLD HAMILTON CRAWFORD, Bachelor of Science (Architecture)  
 EDWARD BERNARD CRIST, Bachelor of Science (Mechanical Engineering)  
 MICHELE CROCE, Bachelor of Science (Chemistry\*)

\*With Thesis



PAUL REVERE CROLL, Bachelor of Science (Chemistry\*)  
 VIOLA JUNE CROSSLAND, Bachelor of Science (Agriculture)  
 THOMAS ALBRIGHT CUNNINGHAM, Bachelor of Arts (Literature and Arts\*)  
 HOMER WALSTON DAHRINGER, Bachelor of Science (Civil Engineering)  
 JUANITA ELIZABETH DARRAH, Bachelor of Arts (Science\*)  
 CHESTER WATSON DAVIS, Bachelor of Science (Agriculture)  
 MALLIE LEONA DAVIS, Bachelor of Arts (Literature and Arts)  
 RUTH LEONE DAVISON, Bachelor of Arts (Literature and Arts)  
 PHILLMER WYMOND DAY, Bachelor of Science (Chemical Engineering\*)  
 MAUDE AROMA DENNY, Bachelor of Music\*  
 CHESTER CHARLES DILLON, Bachelor of Arts (Science)  
 JAMES RUSSELL DILWORTH, Bachelor of Science (Agriculture)  
 HAROLD FRANCIS DOERR, Bachelor of Science (Architectural Engineering)  
 LESLIE ABIJAH DOLE, Bachelor of Science (Electrical Engineering)  
 EDGAR NATHAN DREW, Bachelor of Science (Architecture)  
 GLADYS EADE, Bachelor of Arts (Literature and Arts)  
 HENRY CLARENCE EALES, Bachelor of Science (Agriculture)  
 RALEIGH JOHN EHRHART, Bachelor of Science (Electrical Engineering)  
 GERTRUDE LOUISE ELLIOTT, Bachelor of Science (Agriculture)  
 ALEXANDER ELSTON, Bachelor of Arts (Science)  
 LEO WEISS ELSTON, Bachelor of Arts (Science)  
 LEWIS BROWN ERMELING, Bachelor of Science (Mechanical Engineering)  
 GUILLERMO FILBERTO ESCOBOSA, Bachelor of Science (Agriculture)  
 EMMA MARGARET FAHRNKOPF, Bachelor of Arts (Science)  
 HARRISON FRED THEODORE FAHRNKOPF, Bachelor of Science (Agriculture)  
 EURIPIDES FAJARDO y MAYMIR, Bachelor of Science (Civil Engineering)  
 HAZEL ELIZABETH FANCHER, Bachelor of Arts (Literature and Arts)  
 CLARIBEL FEHRMAN, Bachelor of Arts (Science)  
 MILDRED HELEN FELMLEY, Bachelor of Arts (Literature and Arts)  
 LOUIS SMITH FERGUSON, Bachelor of Science (Mechanical Engineering)  
 DENT FERRELL, Bachelor of Science (Electrical Engineering)  
 FERDINAND AUGUST PAUL FISCHER, Bachelor of Science (Architectural Engineering)  
 WILBUR EARL FLOOD, Bachelor of Science (Civil Engineering)  
 LYMAN MARION FORT, Bachelor of Arts (Science)  
 HARRY LLEWELLYN FOSTER, Bachelor of Science (Architectural Engineering)  
 TRENNACE FLOWERREE, Bachelor of Science (Agriculture)  
 GUSTAV GEORGE FORNOFF, Bachelor of Science (Electrical Engineering)  
 JOHN RAYMOND FOSTER, Bachelor of Science (Agriculture)  
 THEODORE JOHN FRANZEN, Bachelor of Science (Architectural Engineering)  
 MARIE FREEMAN, Bachelor of Arts (Science)  
 RUTH MAE FREEMAN, Bachelor of Arts (Literature and Arts)  
 THEODORE AUGUSTUS FRITCHEY, Jr., Bachelor of Arts (Literature and Arts)  
 ELIZABETH FRUIN, Bachelor of Arts (Science)  
 ALBERT STEVENS FRY, Bachelor of Science (Civil Engineering)  
 HARRY CATLIN FULKS, Bachelor of Arts (Literature and Arts\*)  
 CHARLES MALCOLM FULLER, Bachelor of Science (Municipal and Sanitary Engineering)  
 SOZABU FURUKAWA, Bachelor of Science (Architecture)  
 HENRY ELISHA GADDIS, Bachelor of Arts (Literature and Arts\*)  
 LOUISE WALLACE GARRETT, Bachelor of Arts (Literature and Arts)  
 CARLETON WILLARD GATES, Bachelor of Science (Electrical Engineering)  
 MARGUERITE ELSTON GAUGER, Bachelor of Arts (Science)  
 PAUL CHARLES GAUGER, Bachelor of Science (Architectural Engineering)  
 STRAWN ALDRICH GAY, Bachelor of Science (Architecture)  
 GEORGE EDWARD GENTLE, Bachelor of Science (Agriculture)  
 PAUL HEDGES GIBBS, Bachelor of Science (Mechanical Engineering)  
 WILLIAM CARSON GIESSLER, Bachelor of Science (Municipal and Sanitary Engineering)  
 HARRY CHARLES GILKERSON, Bachelor of Science (Agriculture)  
 EDWARD ANTON GLENZ, Bachelor of Science (Chemical Engineering\*)  
 LLOYD ELIAS GOHN, Bachelor of Arts (Literature and Arts)  
 HENRY MARKS GOODYEAR, Bachelor of Arts (Science)  
 JAMES REILLY GORMLEY, Bachelor of Science (Architecture)  
 RICHARD SEATON GREGG, Bachelor of Science (Architectural Engineering)  
 LEWIS THROCKMORTON GREGORY, Bachelor of Arts (Literature and Arts\*)  
 GEORGE LOWTHANE GREVES, Bachelor of Science (Electrical Engineering)

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JOE CARPENTER GROUT, Bachelor of Arts (Literature and Arts)  
 PEARL FOREST GROVE, Bachelor of Arts (Science\*)  
 HUGO JOSEPH HAHN, Bachelor of Arts (Science)  
 MABEL MAGDALENE HAINES, Bachelor of Arts (Literature and Arts)  
 PAUL JOHNSON HALDEMAN, Bachelor of Arts (Literature and Arts)  
 LAWRENCE MELVILLE HALL, Bachelor of Science (Electrical Engineering)  
 WALTER FREDERICK HANDSCHIN, Bachelor of Science (Agriculture)  
 MURRAY SAMUEL HANES, Bachelor of Science (Architectural Engineering)  
 HARRY INGALLS HANNAH, Bachelor of Arts (Literature and Arts)  
 MERRITT RASMUS HANSEN, Bachelor of Science (Civil Engineering)  
 FAY CHARLES HARE, Bachelor of Arts (Literature and Arts)  
 GEORGE MADISON HARNER, Bachelor of Science (Agriculture)  
 JULIA ALBERTA HARPER, Bachelor of Arts (Literature and Arts)  
 ROSCOE CONKLING HARRIS, Bachelor of Science (Mechanical Engineering)  
 CLARA BELLE HARSHBARGER, Bachelor of Arts (Literature and Arts)  
 JAMES FRANCIS HARSHBARGER, Bachelor of Arts (Science)  
 WALTER SAMUEL HATCH, Bachelor of Science (Agriculture)  
 RALPH ROSCOE HAWKINS, Bachelor of Science (Mechanical Engineering)  
 CLAIR EDWARDS HAY, Bachelor of Science (Agriculture)  
 EMMETT JOSEPH HEALY, Bachelor of Science (Civil Engineering)  
 NATHANIEL PINCKARD HEATH, Bachelor of Science (Electrical Engineering)  
 ARTHUR FLOYD HECK, Bachelor of Science (Agriculture)  
 ROBERT LUCIUS HEGNAUER, Bachelor of Science (Agriculture\*)  
 ALBERT JOHN HERBOLSHEIMER, Bachelor of Science (Agriculture)  
 EDGAR PAUL HERMANN, Bachelor of Arts (Science)  
 GEORGE WIRT HERRICK, Bachelor of Arts (Literature and Arts)  
 ROSCOE HERMAN HICKS, Bachelor of Arts (Literature and Arts)  
 CHARLES NELSON HILL, Bachelor of Arts (Literature and Arts\*)  
 STANLEY HILL, Bachelor of Arts (Science)  
 FRED ALBERT HINRICHSEN, Bachelor of Arts (Literature and Arts)  
 JOSEPH HOWARD HINSHAW, Bachelor of Arts (Literature and Arts)  
 ROBERT WILLIAM HOFFMAN, Bachelor of Science (Agriculture)  
 HOWARD CHRISTOPHER HOHMANN, Bachelor of Science (Electrical Engineering)  
 JOSIAH CAMPBELL HOKE, Bachelor of Science (Agriculture)  
 ARTHUR EVERETT HOLCH, Bachelor of Music\*  
 EMORY FORD HOLT, Bachelor of Science (Electrical Engineering)  
 CARYL AMES HOLTON, Bachelor of Science (Civil Engineering)  
 MARTIN ROBERT HORNUNG, Bachelor of Science (Ceramics\*)  
 CHARLES RUSH HORRELL, Bachelor of Science (Electrical Engineering)  
 MARY MILDRED HOSKINS, Bachelor of Arts (Literature and Arts)  
 EDWARD A HRIBAL, Bachelor of Science (Architectural Engineering)  
 LUCY ELEANOR HUBBARD, Bachelor of Arts (Science)  
 CLYDE WHITTAKER HUDELSON, Bachelor of Science (Agriculture)  
 JOHN HARVEY HUGHES, Bachelor of Science (Agriculture)  
 DANIEL RAY HULL, Bachelor of Science (Agriculture)  
 ADA ELEANOR HUNT, Bachelor of Arts (Science)  
 RUSSELL FIELD HUNTER, Bachelor of Arts (Science)  
 RICHARD FREDERICK HUXMANN, Bachelor of Science (Civil Engineering)  
 TADASHI IIDA, Bachelor of Science (Electrical Engineering)  
 VIVIAN JOHNSON INGOLD, Bachelor of Science (Architectural Engineering)  
 JOSE LEDESMA JALANDONI, Bachelor of Arts (Literature and Arts)  
 ALICE SARAH JOHNSON, Bachelor of Arts (Literature and Arts)  
 HARVEY JUDD JOHNSON, Bachelor of Science (Electrical Engineering)  
 NELLE IRENE JOHNSON, Bachelor of Arts (Literature and Arts)  
 ANDREW JOHN JOHNSTONE, Bachelor of Science (Agriculture)  
 GEORGE RUFUS JOHNSTONE, Bachelor of Arts (Science)  
 RUPERT FORREST JONES, Bachelor of Science (Electrical Engineering)  
 WALDEMAR KARKOW, Bachelor of Science (Civil Engineering)  
 WALTER VALENTINE KAUN, Bachelor of Science (Electrical Engineering)  
 CHARLES JOHN KAY, Bachelor of Science (Electrical Engineering)  
 GEORGE JOSEPH KAY, Bachelor of Science (Electrical Engineering)  
 LAURENCE PRESCOTT KEITH, Bachelor of Science (Architectural Engineering)  
 MAE ELIZABETH KELLEY, Bachelor of Arts, (Literature and Arts)  
 LEE CARSON KENT, Bachelor of Science (Electrical Engineering)  
 EVANS SHERWOOD KERN, Bachelor of Science (Agriculture)  
 CLARENCE HENRY KESSLER, Bachelor of Science (Electrical Engineering)  
 ARTHUR WILLIS KIMBELL, Bachelor of Science (Civil Engineering)

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LILLIAN MAY KING, Bachelor of Science (Agriculture)  
 ROGER CHARLES KIRCHHOFF, Bachelor of Science (Architecture)  
 RAYMOND KENNETH KNOX, Bachelor of Science (Architecture)  
 CHARLES WILLIAM KNUDSEN, Bachelor of Science (Chemistry\*)  
 JEROME FRANCIS KOHOUT, Bachelor of Science (Chemistry\*)  
 STUART FARNSWORTH KOSTERS, Bachelor of Science (Civil Engineering)  
 JOHN FRANKLIN KRAEGER, Bachelor of Science (Chemistry\*)  
 JESSE C KRAMER, Bachelor of Science (Electrical Engineering)  
 WILLIAM SAMUEL KREBS, Bachelor of Arts (Literature and Arts)  
 JOHN HENRY KUIL, JR., Bachelor of Science (Architectural Engineering)  
 ERNEST MICHAEL RUDOLPH LAMKEY, Bachelor of Arts (Science)  
 CORA MAE LANE, Bachelor of Arts (Literature and Arts)  
 CYRUS WILLIAM LANTZ, Bachelor of Arts (Science)  
 FRANCIS DU LUDE LARKIN, Bachelor of Arts (Science)  
 IDA CLEMENTINE LARKIN, Bachelor of Arts (Literature and Arts)  
 WILLIAM JAMES LARKIN, JR., Bachelor of Science (Architectural Engineering)  
 LESTER REGINALD LARSEN, Bachelor of Science (Mechanical Engineering)  
 ROBERT THOMAS LATTIN, Bachelor of Science (Electrical Engineering)  
 THEODORE EDMOND LAYDEN, Bachelor of Science (Agriculture)  
 MARGARET FANNY LEACH, Bachelor of Arts (Literature and Arts)  
 EVERETT SAMUEL LEE, Bachelor of Science (Electrical Engineering)  
 EUGENE HENDRICKS LESLIE, Bachelor of Science (Chemical Engineering\*)  
 CLARA EDITH LOCKE, Bachelor of Arts (Science)  
 FRANK XAVIER LOEFFLER, Bachelor of Science (Civil Engineering)  
 THEODORE EDWIN LOEHR, Bachelor of Arts (Literature and Arts)  
 PAO KAN LOH, Bachelor of Science (Agriculture)  
 LOUIS WARREN LOHR, Bachelor of Arts (Literature and Arts)  
 SARAH EULA LOUTZENHISER, Bachelor of Arts (Literature and Arts)  
 EDWARD ROSS LUNEY, Bachelor of Science (Mechanical Engineering)  
 MARGARET CHRISTINE MCCLINTOCK, Bachelor of Science (Agriculture)  
 JOSEPH MCCRARY McCUNE, Bachelor of Arts (Literature and Arts)  
 DANIEL HUNT MCGORRISK, Bachelor of Science (Architectural Engineering)  
 CHARLES BABCOCK MCGREW, Bachelor of Science (Architecture)  
 HAROLD STANTON MCINTOSH, Bachelor of Science (Mechanical Engineering)  
 GEORGE EDWARD MCINTYRE, Bachelor of Science (Architectural Engineering)  
 MABEL MCINTYRE, Bachelor of Arts (Literature and Arts)  
 HENRY THEODORE MCKINNEY, Bachelor of Arts (Literature and Arts)  
 HENRY EVEN MCMULLEN, Bachelor of Arts (Science)  
 ELON CHARLES MAGEE, Bachelor of Science (Agriculture)  
 EDWARD HAROLD MANN, Bachelor of Science (Agriculture)  
 LELAND STANFORD MARKLEY, Bachelor of Science (Agriculture)  
 FRANK EDWARD MARSHALL, Bachelor of Science (Electrical Engineering)  
 JOHN HOWARD MASTERS, Bachelor of Science (Mechanical Engineering)  
 CORNELIA GRACE MATHER, Bachelor of Arts (Science)  
 LESLIE EUGENE MATHERS, Bachelor of Science (Agriculture)  
 MANLEY BONHAM MATHERS, Bachelor of Science (Agriculture)  
 HOWARD MATHEWS, Bachelor of Science (Electrical Engineering)  
 JOHN ALVIN MAURY, Bachelor of Science (Electrical Engineering)  
 GEORGE WILLIAM MAYES, Bachelor of Science (Electrical Engineering)  
 CHARLES THADDEUS MEEK, Bachelor of Science (Agriculture)  
 THEODORE DECATUR MESERVE, Bachelor of Arts (Science)  
 WALTER STANLEY MIDDLETON, Bachelor of Science (Mining Engineering)  
 JESSIE FAY MILLER, Bachelor of Arts (Literature and Arts\*)  
 WELBY WEST MILLER, Bachelor of Arts (Literature and Arts)  
 LOYAL LEONARD MINOR, Bachelor of Science (Agriculture)  
 HARRY RUGEE MIRICK, Bachelor of Arts (Literature and Arts)  
 FRANCIS DE SALES MISNER, Bachelor of Science (Electrical Engineering)  
 JOE ORLANDO MITCHELL, Bachelor of Science (Architecture)  
 MARTIN IRA MIX, Bachelor of Science (Mechanical Engineering)  
 HSIANG-YUEH MOH, Bachelor of Science (Agriculture)  
 ALICE ELVIRA MORRIS, Bachelor of Arts (Science)  
 OLGA FERN MOSER, Bachelor of Music\*  
 GEORGE MOUNCE, Bachelor of Arts (Science)  
 MARYON EVELYN MOUNTS, Bachelor of Arts (Literature and Arts)  
 COURTLAND LEROY MUNROE, Bachelor of Science (Chemical Engineering\*)  
 KENDALL TUTTLE MURPHY, Bachelor of Science (Civil Engineering)  
 ARTHUR LESLIE MYERS, Bachelor of Science (Mechanical Engineering)

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\*With Thesis



CHARLES EVERETT MYERS, Bachelor of Arts (Science)  
 LENA JOSEPHINE MYERS, Bachelor of Arts (Literature and Arts\*)  
 MERLE LOUIS NEBEL, Bachelor of Science (Mining Engineering)  
 JOHN LYNDE NEELY, Bachelor of Science (Agriculture)  
 ALMA JESSIE NEILL, Bachelor of Arts (Science)  
 ARTHUR SEYMOUR NEVINS, Bachelor of Arts (Literature and Arts\*)  
 FANNY NEWMAN, Bachelor of Arts (Literature and Arts)  
 LEONARD VICTOR NEWTON, Bachelor of Science (Mining Engineering)  
 JAMES LAWRENCE NICHOLS, Bachelor of Arts (Literature and Arts)  
 RALPH ULINE NICHOLS, Bachelor of Science (Architectural Engineering)  
 JAMES ARTHUR NOON, Bachelor of Arts (Science)  
 GEORGE SINCLAIR NUTT, Bachelor of Science (Chemistry\*)  
 CLAUDE LESLIE OATHOUT, Bachelor of Science (Agriculture)  
 THOMAS EDWARD O'DONNELL, Bachelor of Science (Architecture)  
 PHILIP LONGWORTHY OGDEN, Bachelor of Science (Electrical Engineering)  
 ARTHUR HOOK OGLE, Bachelor of Arts (Literature and Arts)  
 CHARLES ROBERT OGLE, Bachelor of Science (Mechanical Engineering)  
 BENITO RENE ORDONEZ, Bachelor of Science (Mechanical Engineering)  
 HARLEY PARIS OTTMAN, Bachelor of Science (Agriculture)  
 EMMONS OVERMIER, Bachelor of Science (Mechanical Engineering)  
 MARGARET PACK, Bachelor of Arts (Literature and Arts)  
 WILLIAM KING PALMER, JR., Bachelor of Science (Agriculture)  
 CHARLES JOHN PANKOW, Bachelor of Science (Architecture)  
 HELEN LUCY PARKER, Bachelor of Arts (Literature and Arts)  
 HARRY GLENN PARKINSON, A.B. (Waynesburg College) 1911, Bachelor of Science (Agriculture)  
 NEWTON LYMAN PARTRIDGE, Bachelor of Science (Agriculture)  
 ELSIE PATTON, Bachelor of Arts (Literature and Arts)  
 WILLIAM HENRY PEARSON, Bachelor of Arts (Literature and Arts)  
 JOHN GEORGE PENN, Bachelor of Science (Electrical Engineering)  
 HERBERT CHRISTIAN PETERSEN, Bachelor of Science (Civil Engineering)  
 HAROLD PETERSON, Bachelor of Science (Civil Engineering)  
 LOLA MAUDE PETERSON, Bachelor of Arts (Literature and Arts)  
 RALPH GERALD PETERSON, Bachelor of Science (Civil Engineering)  
 CLARK CULBERTSON PIPER, Bachelor of Arts (Science)  
 HARRY BRUCE PIPER, Bachelor of Science (Agriculture)  
 LYLE JAY PLETCHER, Bachelor of Arts (Science)  
 OPHA BELLE PLETCHER, Bachelor of Arts (Literature and Arts)  
 WILBUR HOMER PONDER, Bachelor of Arts (Literature and Arts)  
 AGNES NELLIE PORTER, Bachelor of Arts (Literature and Arts)  
 CHARLEY LYMAN PORTER, Bachelor of Arts (Science)  
 WILLARD BLAINE PORTERFIELD, Bachelor of Arts (Literature and Arts)  
 ALVA LEROY PRICKETT, Bachelor of Arts (Literature and Arts)  
 FORD SMOOT PRINCE, Bachelor of Science (Agriculture)  
 MERWIN LOGSDON PRINDLE, Bachelor of Arts (Science)  
 FRED JOSEPH PROUT, Bachelor of Science (Railway Mechanical Engineering)  
 STUART ALBERT RALSTON, Bachelor of Science (Electrical Engineering)  
 CHARLES CLAFLIN RAND, Bachelor of Science (Ceramics\*)  
 OTTO COFFEEN FITZ RANDOLPH, Bachelor of Science (Civil Engineering)  
 ETHEL ALICE RANSON, Bachelor of Arts (Literature and Arts)  
 ACORS EARL RATHBUN, Bachelor of Arts (Science)  
 BRYNE LUCAS RAY, Bachelor of Arts (Science)  
 EDWARD ERNEST REDDERSSEN, Bachelor of Science (Railway Civil Engineering)  
 ALICE REDHED, Bachelor of Arts, (Literature and Arts)  
 ERWIN AMBROSE REED, Bachelor of Science (Civil Engineering)  
 HARRY PAYNE REEVES, Bachelor of Arts (Literature and Arts)  
 FRITZ REIN, Bachelor of Science (Agriculture)  
 CHARLES LEONARD REISNER, Bachelor of Science (Agriculture)  
 WALTER RICHARD REITZ, Bachelor of Science (Mechanical Engineering)  
 HOPE EDWIN REUM, Bachelor of Science (Civil Engineering)  
 ARTHUR LOUIS RICHE, Bachelor of Science (Electrical Engineering)  
 LILLIAN RIDDLE, Bachelor of Arts (Literature and Arts)  
 TEMPLE ELLIOTT RIDGELY, Bachelor of Arts (Literature and Arts)  
 NELLIE PAULINE RIGHTER, Bachelor of Arts (Literature and Arts)  
 ELMER ROBERTS, Bachelor of Science (Agriculture)  
 HARRY VIVIAN ROBERTS, Bachelor of Science (Architectural Engineering)  
 NELLIE READ ROBERTS, Bachelor of Arts (Literature and Arts)

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EVA LOVE ROBERTSON, Bachelor of Arts (Literature and Arts)  
 FLORENCE ELINOR ROBINSON, Bachelor of Arts (Literature and Arts)  
 FRANK CHARLES ROHRBOUGH, Bachelor of Science (Civil Engineering)  
 CLARENCE SAMUEL ROSS, Bachelor of Arts (Science\*)  
 RUSSEL CURTIS ROTTGER, Bachelor of Arts (Literature and Arts)  
 RICHARD YATES ROWE, Bachelor of Arts (Literature and Arts)  
 IRVING RANDOLPH RUBY, Bachelor of Science (Chemical Engineering\*)  
 HERBERT JUDSON RUCKER, Bachelor of Science (Agriculture)  
 FAY RUMERY, Bachelor of Science (Agriculture)  
 EARL RUNDLES, Bachelor of Science (Civil Engineering)  
 WALTER CLIFFORD SADLER, Bachelor of Science (Railway Civil Engineering)  
 ETHEL IMOGENE SALISBURY, Bachelor of Arts (Literature and Arts)  
 ERNEST EUGENE SANDALL, Bachelor of Science (Agriculture)  
 GEORGE STANLEY SANGDAHL, Bachelor of Science (Civil Engineering)  
 CHARLES BOVETT SAYRE, Bachelor of Science (Agriculture)  
 EDWARD MICHAEL SCHALCK, Bachelor of Arts (Science)  
 JACOB PHILIP SCHEID, Bachelor of Arts (Literature and Arts)  
 OTTO PAUL SCHINNERER, Bachelor of Arts (Literature and Arts)  
 LOUISE GUSTAVA SCHLUTIUS, Bachelor of Arts (Literature and Arts)  
 LORENTZ SCHMIDT, Bachelor of Science (Architecture)  
 ERWIN ANTHONY SCHMITZ, Bachelor of Science (Civil Engineering)  
 JOHN FRANCIS SCHNELLBACH, Bachelor of Science (Municipal and Sanitary Engineering)  
 CARL ARTHUR SCHOESSEL, Bachelor of Science (Mechanical Engineering)  
 CLARENCE SCHOLL, Bachelor of Science (Chemical Engineering\*)  
 PLASCIE LAFAYETTE SCHOOLCRAFT, Bachelor of Arts (Literature and Arts)  
 RALPH CLELAND SCOTT, Bachelor of Arts (Literature and Arts)  
 GEORGE WILLIAM SEILER, Bachelor of Arts (Science)  
 SENTARO SEKINE, Bachelor of Science (Mechanical Engineering)  
 EDITH IRENE SENDENBURGH, Bachelor of Arts (Literature and Arts)  
 MILTON GEORGE HENRY SEVERINGHAUS, Bachelor of Arts (Literature and Arts)  
 MILDRED CLAYTON SEYSTER, Bachelor of Arts (Science\*)  
 WEN-YU SHEN, Bachelor of Science (Agriculture)  
 WALTER ANDREW SHEWHART, Bachelor of Arts (Science)  
 EDITH ADELIN SHULTZ, Bachelor of Arts (Literature and Arts)  
 BERTHA ANNA SIEMEN, Bachelor of Arts (Literature and Arts)  
 ARTHUR MOULTON SIMPSON, Bachelor of Science (Mechanical Engineering)  
 GEORGE ERIC SIMPSON, Bachelor of Science (Chemistry\*)  
 MRS. CORA HUTTON SISAM, Bachelor of Arts (Literature and Arts)  
 JAMES ROY SKILES, Bachelor of Arts (Literature and Arts)  
 CARL AUGUST SKOGLUND, Bachelor of Science (Mechanical Engineering)  
 ALFRED DALE SMITH, Bachelor of Science (Electrical Engineering)  
 CECIL WELDON SMITH, Bachelor of Science (Mining Engineering)  
 LLOYD GASTON SMITH, Bachelor of Science (Mechanical Engineering)  
 RAYMOND STRATTON SMITH, B.S. (Pomona College) 1907, Bachelor of Science (Agriculture)  
 ROSCOE RAYMOND SNAPP, Bachelor of Arts (Science); Bachelor of Science (Agriculture)  
 HOWARD JOHN SNIDER, Bachelor of Science (Agriculture)  
 ANDREW FREDERICK SODERBERG, Bachelor of Science (Architectural Engineering)  
 NIELS CHESTER SORENSEN, Bachelor of Science (Architecture)  
 MARSHALL ANKENY SOUERS, Bachelor of Science (Agriculture)  
 CLARKE H SPITLER, Bachelor of Arts (Literature and Arts)  
 LELAND STANFORD STALLINGS, Bachelor of Science (Agriculture)  
 JEANNETTE STEDMAN, Bachelor of Music\*  
 GLADYS AGNES STEVENS, Bachelor of Music\*  
 JAMES VAIL STEVENSON, A.B. 1912, Bachelor of Science (Agriculture)  
 FRANK VENNUM STIPP, Bachelor of Arts (Science)  
 MARIE JENNIE STOLTEY, Bachelor of Arts (Literature and Arts)  
 OTHELLO RAYMOND STONE, Bachelor of Science (Architecture)  
 GLEN HOWENSTEIN STOUGH, Bachelor of Science (Municipal and Sanitary Engineering)  
 PAUL VALENTINE STREHLOW, Bachelor of Science (Architectural Engineering)  
 GEORGE FRED SUTHERLAND, Bachelor of Arts (Science)  
 EDWIN HENRY SWENSON, Bachelor of Science (Civil Engineering)  
 BAYARD FREEMAN TABER, Bachelor of Science (Architecture)  
 CHARLES NELSON TARBLE, Bachelor of Science (Agriculture)

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EVERETT HARVEY TAYLOR, Bachelor of Arts (Science)  
 HAZEL EMMA TAYLOR, Bachelor of Science (Agriculture)  
 MARCUS PREVOST TAYLOR, Bachelor of Science (Civil Engineering)  
 SCOTT CHAMPLIN TAYLOR, Bachelor of Science (Chemical Engineering\*)  
 WILLIAM LINCOLN TAYLOR, A.B. 1912, Bachelor of Science (Agriculture)  
 CLEAVER THAYER, Bachelor of Arts (Literature and Arts)  
 MARGARET KATHERINE THEILEN, Bachelor of Arts (Literature and Arts)  
 JAY FRANCIS THOMASON, Bachelor of Science (Agriculture)  
 HARWELL CLOUD THOMPSON, Bachelor of Arts (Literature and Arts\*)  
 HERBERT PERCY THOMPSON, Bachelor of Science (Mechanical Engineering)  
 MABEL ELIZABETH THORNE, Bachelor of Arts (Science)  
 CLYDE HOLLIS THRELKELD, Bachelor of Arts (Literature and Arts)  
 ALICE MARIA TIMMIS, Bachelor of Science (Agriculture)  
 TESSIE ELIZABETH TROWBRIDGE, Bachelor of Science (Agriculture)  
 ROBERT EDGAR TURLEY, JR., Bachelor of Science (Civil Engineering)  
 REUBEN RAYMOND TURNER, Bachelor of Arts (Science)  
 HAROLD WERTZ UNDERHILL, Bachelor of Science (Architecture)  
 HOWARD DEWITT VALENTINE, Bachelor of Science (Chemical Engineering\*)  
 WILLIAM CARL VAUBLE, Bachelor of Science (Agriculture)  
 CHESTER ANDRUS VINCENT, Bachelor of Science (Civil Engineering)  
 WILLIAM RICHARDSON VOSBURG, Bachelor of Arts (Literature and Arts)  
 ARTHUR MELLINGER WAGGONER, Bachelor of Science (Architecture)  
 EDWARD WALLACE, Bachelor of Science (Civil Engineering)  
 WELLINGTON JAMES HAMILTON WALLACE, Bachelor of Science (Architecture)  
 EDWARD HARVEY WALWORTH, Bachelor of Science (Agriculture)  
 CHAUNCEY BROWN WATSON, Bachelor of Science (Agriculture)  
 CLAUDE HARRISON WATTS, Bachelor of Arts, (Literature and Arts)  
 HERMAN WILLIAM WEIS, Bachelor of Arts (Science)  
 LEO HAROLD WEISFELD, Bachelor of Science (Architecture)  
 CHARLES MINER WHAITE, Bachelor of Science (Electrical Engineering)  
 IRENE BURCHARD WHEELER, Bachelor of Arts (Literature and Arts)  
 LYMAN GAGE WHEELER, Bachelor of Science (Civil Engineering)  
 JAMES MARION WHELAN, JR., Bachelor of Science (Civil Engineering)  
 CALVIN WILLIAM WHITE, Bachelor of Arts (Literature and Arts)  
 JAMES GORDON WHITE, Bachelor of Science (Civil Engineering)  
 MARY LOUISE WHITE, Bachelor of Arts (Literature and Arts)  
 CHARLES EARL WHITNEY, Bachelor of Science (Civil Engineering)  
 HELEN WOODROW WHITNEY, Bachelor of Arts (Literature and Arts)  
 HARRY ANTHONY WIERSEMA, Bachelor of Science (Architectural Engineering)  
 JAMES ELMO WILEY, Bachelor of Science (Agriculture)  
 MAUD HARRIETT WILLARD, Bachelor of Arts (Science)  
 FAY WILLERTON, Bachelor of Arts (Literature and Arts)  
 ALFRED LEROY WILLIAMS, Bachelor of Science (Agriculture)  
 LULU HAZEL WILLIAMS, Bachelor of Arts (Literature and Arts)  
 ROY CAMPBELL WILLIAMS, Bachelor of Science (Civil Engineering)  
 BELLE WILLIAMSON, Bachelor of Arts (Literature and Arts)  
 ELSA WINTERMEYER, Bachelor of Arts (Science)  
 FRED PETER WITTICH, JR., Bachelor of Science (Electrical Engineering)  
 CHARLES ABRAHAM WOLD, Bachelor of Science (Civil Engineering)  
 HERMAN CARL WOLF, Bachelor of Science (Electrical Engineering)  
 WILLIAM SIDNEY WOLFE, Bachelor of Science (Architectural Engineering)  
 WING FOOE WONG, Bachelor of Arts (Literature and Arts\*)  
 TSING TOO WOO, Bachelor of Arts (Science); Bachelor of Science (Electrical Engineering)  
 WAI SHUN WOO, Bachelor of Science (Agriculture)  
 DANIEL CHARLES WOOD, Bachelor of Science (Electrical Engineering)  
 ARDIE GERALDINE WOODS, Bachelor of Arts (Literature and Arts)  
 GEORGE EDWARD WOODS, Bachelor of Arts (Literature and Arts)  
 FAY MORSE WOOLDRIDGE, Bachelor of Science (Electrical Engineering)  
 WILLIAM HENRY WOOLSTON, Bachelor of Arts (Science)  
 JOSEPH LOYD WORRELL, Bachelor of Science (Agriculture)  
 MABEL FERN WORRELL, Bachelor of Arts (Literature and Arts)  
 ALLEN THURMAN WRIGHT, Bachelor of Arts (Literature and Arts)  
 SAMUEL ANTHONY WRIGHT, Bachelor of Arts (Literature and Arts)  
 CHAI KOA WU, Bachelor of Arts (Science)  
 CHIA CHEOW YEN, Bachelor of Arts (Science)

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\*With Thesis



EVERETT GILLHAM YOUNG, Bachelor of Science (Railway Mechanical Engineering)  
 YUNG YEN YOUNG, Bachelor of Arts (Science); Bachelor of Science (Agriculture)  
 HENRY CHARLES ZEIS, Bachelor of Arts (Literature and Arts)  
 ROBERT PAUL ZIMMERMAN, Bachelor of Arts (Literature and Arts)

## THE COLLEGE OF LAW

### DEGREE OF BACHELOR OF LAWS

*Conferred June 11, 1913*

CYRIL AGARD BURNS, A.B., 1911  
 WILL M CANNADY, JR.  
 BENJAMIN HARRISON CROWDER  
 EVERETT LESLIE DALBEY  
 JAMES EVERETT ETHERTON  
 CHARLES HARRISON FLETCHER  
 HERRICK HOPKINS HARWOOD  
 HENRY COLLINS HAY  
 GEORGE WIRT HERRICK  
 WILLIAM EDWARD LEVIS  
 ROBERT CHARLES MIZE  
 HARRY CLAY MOORE

HARRY EDWARD MORGAN  
 ARTHUR MARVIN MORRIS  
 JACOB WILLIAM MYERS, A.B., 1911  
 CHARLES ANDREW O'CONNOR  
 MARTIN FREDERICK OEHMKE  
 CLYDE HARRISON PARR  
 ERNEST ALBERT RICH  
 SOUTHWORTH SAMUEL SARGEANT  
 FRED REEVES TATE  
 EMIL JOSEPH VERLIE  
 PHILIP HENRY WARD

### DEGREE OF DOCTOR OF LAW

ROSCOE CLARKE DILLAVOU, A.B., 1911  
 CHESTER HAROLD FARTHING, B.S. (McKendree College) 1909  
 WILLIAM DUDLEY PAUL FARTHING, B.S. (McKendree College) 1909

## THE LIBRARY SCHOOL

### DEGREE OF BACHELOR OF LIBRARY SCIENCE

*Conferred June 11, 1913*

FLORA MARGARET CASE, A.B., 1912  
 ELIZABETH HENRIETTA CASS, A.B., 1912  
 EDITH HARLEY FORD, Ph.B. (University of Chicago) 1910  
 LAURA MARY HUBBARD, A.B. (Western College for Women) 1896  
 MARTHA WINIFRED KNAPP, A.B. (Ohio Wesleyan University) 1899  
 OPHA BELLE PLETCHER, A.B., 1913  
 NELLIE MABEL ROBERTSON, A.B. (Moore's Hill College) 1900  
 MARY TORRANCE, A.B. (Hanover College) 1900

## THE COLLEGE OF MEDICINE

### DEGREE OF DOCTOR OF MEDICINE AND SURGERY

*Conferred June 10, 1913, in Chicago*

|                                   |                                |
|-----------------------------------|--------------------------------|
| HAROUTOUNE ASADOUR ADROUNIE, A.B. | IONE FISHER BEEM, A.B.         |
| ALBERT LEE ALDERSON, B.S.         | JAMES HENRY BLOOMFIELD         |
| JAMES WESLEY ALDRIDGE             | HERBERT CLARENCE BOLSTAD, A.B. |
| BENJAMIN S ANSPACH                | CLEAVER HENRY BRINKERHOFF      |
| HENRY WILSON AVERILL, M.M.        | ERNEST AUGUST BREDLAU          |
| MICHAEL JOHN BADZMIEROWSKI        | WILLIAM RILEY BROWN            |
| IRVING FRANCIS BARNETT            | FRANK EARL BROWNING            |
| NATHANIEL ISADOUR BASKIND         | STEPHEN MALCOLM BURDON         |
| HERMAN HENRY BASSLER, M.D.        | THEODORE DAVID BURGER          |

MARJORIE IRENE CAMERON  
 FRANCIS VINCENT CARBERRY  
 CLYDE LOWE CASEY  
 FRANCIS JOSEPH CAYLEY  
 JOHN BAPTIST CIPRIANI  
 FRANK NEILL CLIFF  
 MAYER COFFLER, Ph.B.  
 EVERETT PORTER COLEMAN  
 URBAN VOLPERT COMES, Ph.G.  
 LYMAN JOSEPH COOK, A.B.  
 SAMUEL LECOUNT COOK  
 ROBERT ARCHIE CRAWFORD  
 DREXEL LOWRY DAWSON  
 ANTHONY FERDINAND DELFOSSE  
 RAYMOND FRANK DOWELL  
 JAMES CASPER DROSTE, A.B., Ph.B.  
 WARREN ZACHARY EARL  
 ALBA CLINTON EDWARDS  
 SHEFTTEL JACOB ELNER  
 ANTON JOHN FIRTIK  
 GEORGIA ADELL FILLEY  
 SAMUEL CLIFTON FLEMING, A.B.  
 CHESTER WATSON FOUSER  
 ADOLPH MITCHELL FRANK  
 WILLIAM ARTHUR FRYMIRE  
 VERNANDA JOSHUA FUNKERBURK, M.D.  
 ROBERT LUDWIG FURBY  
 LEON GLASSMAN  
 CARL HENRY GOLBECK  
 JESSE TROTT GRAYSTON  
 PAUL SWING HAGEMAN  
 GWYN FORBES HAIG  
 JOHN HARVEY HANSEN  
 WILLIAM HENRY HAZLETT  
 WILLIAM ALBERT HENKE, M.D.  
 MAURICE CHARLES HENNESSEY  
 CLARA ALMA HERGERT  
 ALLAN JOSEPH HRUBY  
 LYDIE JESPERSSON  
 SVEN JESPERSSON  
 FRANK HETHERINGTON KELLY, Ph.C.,  
 D.D.S.  
 RAY PORTER KILE  
 HOWARD TALCOTT KNIGHT  
 FRANK JOSEPH KOTALIK  
 CONSTANTINE JOHN KOURSOMIS  
 JOHN CHARLES MATTHEW KRASA  
 DISRAELI WILLIAM KOBAT  
 ALVIN WILFRED LAFORGE, LL.B., M.D.  
 CHARLES PHILIP LAPIN  
 JOSEPH SEBASTIAN LUNDHOLM  
 MYRON E LOLLAR  
 JOHN HARRY LUCZAK  
 CHRISTINE LUKAS  
 AUGUST HENRY LUEDERS  
 FRANK CHALMERS McCLANAHAN  
 EUGENE ANDREW MCCORNACK

DESMOND FRANCIS MCGUIRE  
 GORDON LAWRENCE MCLELLAN  
 JOHN MAXWELL  
 HARRY ALBERT MEYERS  
 EUGENE ABRAHAM MITZENMACHER  
 MARIE ANNA MOTIS, M.D.  
 EMERY BOWERS NEFF  
 HARRY NICHOLS  
 ALBERT GOODSSELL NOBLE  
 JOHN FRANCIS OATES  
 ARTHUR ROBERT OHMAN  
 JAMES ARCHIBALD ORBISON  
 LEROY LOWELL PARKE  
 FRANK RAUCH PATTON  
 LEIGH KLUMB PATTON, A.B.  
 EVERETT HERBERT PEA  
 ERNEST BALLARD PEARSON, A.B.  
 HOWARD SAMUEL PERRY  
 RAY HUMBERT PETTY  
 JOHN JUSTIN POWELL, B.S.  
 EDWARD HAROLD RATEGAN  
 BLAKE EDWIN RAY  
 WALTER JOSEPH REAM  
 ALFRED EDWIN RHEIN, M.D.  
 IMAS PRYOR RICE  
 ROBERT SALEM SALK  
 RUFINO ABRIOL SANTOS  
 ALVAH LEWIS SAWYER, B.S.  
 ISADOR SIDNEY SEGALL  
 HARRY STEVENSON SEIWELL  
 LEWIS AUGUST SEYMER  
 HARVE ROY SHARPE  
 CHARLES ARTHUR SIMA  
 LLOYD HIMBAUGH SIMMONS  
 BESSIE BELLE SINCLAIR  
 EDWARD FRANK SLAVIK  
 GUY ARTHUR SLOAN  
 CLARENCE VERNON SMITH  
 FLOYD ALBERT SMITH  
 GEORGE HENRY SMITH  
 BONNELL MARIE SOUDER  
 SAMUEL STEIN  
 CHARLES WARREN STIGMAN  
 ELDORA ALICE THOMAS, B.S.  
 HENRY HOWARD TOWLES  
 MAX WILLIAM TRENTZSCH  
 HARVEY WILLARD TUPPER  
 GEORGE ALEXANDER WAGNER, M.D.  
 RAYMOND LAWRENCE WALL  
 WILLIS HERBERT WATSON  
 JEROME JACOB WEIL  
 PAUL BROWN WELCH  
 TODD J WILSON  
 PHILIP HERMAN WOLFRAM, B.S.  
 RALPH HUESTON WOODS, Ph.G.  
 CLARK WILLIAM ZUGG

## THE SCHOOL OF PHARMACY

### DEGREE OF GRADUATE IN PHARMACY

*Conferred April 24, 1913, in Chicago*

GROVER CLEVELAND ARNOLD  
 GEORGE EDWARD BUCKMAN  
 HAROLD POTTER CHAPMAN  
 HAROLD VINCENT CLEVELAND

ROYAL R DAVENPORT  
 GEORGE EDWARD DAVIDSON  
 EDWARD THOMAS DONAHUE  
 GUY WILBUR EICHOLTZ



KARL VINE GAMBELL  
 ALFRED C GRAGG  
 LUCAS PETER HANNEMAN  
 EDGAR PHILIP HEIDBREDER  
 CARL JOHN HENRY  
 MALCOLM LEE HUTTON  
 WILLIAM RUSH KOST  
 ALBERT W LOGAN  
 ERRETT HALE LOLLAR  
 EDWARD LUCKIESH  
 ALFRED MICHAEL LUKASEK  
 ROY MCNEILL  
 ELI METCOFF

HOUSTON PORTER  
 CHARLES JOHN SCHULTZ  
 WALTER CARL SCHULZ  
 HARRY FLEMING STABLES  
 LOUIS ELMER STOEBIG  
 GEORGE STULIK  
 FRANK WILLIAM VAN NUGTEREN  
 REUBEN WILLIAM WALTHER  
 LEE A WIXSOM  
 OSCAR F WOLTERS DORF  
 FRED BERNARD BALMER (class of 1912)  
 JOSEPH FRANCIS HREJSA (class of 1911)

### DEGREE OF PHARMACEUTICAL CHEMIST

*Conferred June 10, 1913, in Chicago*

MATTHEW VIRGIL BOUTTE (Class of 1911)  
 FORREST OMO SNYDER  
 JAMES SILAS VANN

## THE GRADUATE SCHOOL

### DEGREES OF MASTER OF ARTS AND MASTER OF SCIENCE

*Conferred June 11, 1913*

|                                                                                            |                                                                                                          |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| HARRY ORSON ALLISON, B.S., 1906<br>Master of Science (Animal Husbandry)                    | LUAN CHANG, B.C.E.<br>(Tangshan Engineering College) 1911<br>Master of Science (Civil Engineering)       |
| CLAIR ELLMORE ANDERSON, B.S., 1911<br>Master of Science (Electrical Engineering)           | VUN-DIN CHINZUN CHANG, B.S., 1912<br>Master of Science (Agronomy)                                        |
| LEO MAHLON APGAR, B.S., 1912<br>Master of Science (Electrical Engineering)                 | ANN CHESTER, A.B., 1905<br>Master of Arts (English)                                                      |
| JUNE MAUD ASHLEY, A. B.<br>(University of Colorado) 1912<br>Master of Arts (Zoology)       | FRED EMERSON CLARK, A.B.<br>(Albion College) 1912<br>Master of Arts (Economics)                          |
| GLEN DAVID BAGLEY, B.S., 1912<br>Master of Science (Electrical Engineering)                | MARGARET VARA COBB, A.B.<br>(Radcliffe College) 1910<br>Master of Arts (Zoology)                         |
| BRONSON BARLOW, B.S.<br>(Michigan Agricultural College) 1902<br>Master of Science (Botany) | JESSE LEROY CONEL, A.B.<br>(James Millikin University) 1912<br>Master of Arts (Zoology)                  |
| ALICE BIESTER, A.B., 1912<br>Master of Arts (Household Science)                            | SIDNEY HAYES COX, A.B.<br>(Bates College) 1911<br>Master of Arts (English)                               |
| SIMEON E BOOMER, A.B., 1909<br>Master of Arts (Physics)                                    | WILLIAM TRUMAN CRANDALL, B.S.A.<br>(University of Wisconsin) 1909<br>Master of Science (Dairy Husbandry) |
| HUGH ALEXANDER BROWN, B.S., 1911<br>Master of Science (Electrical Engineering)             | LLOYD HAYES DAVIS, A.B.<br>(Wabash College) 1911<br>Master of Arts (Chemistry)                           |
| ROBERT WESLEY BROWN, B.S.<br>(Northwestern University) 1911<br>Master of Science (Geology) | MABEL ELIZABETH DIBELL, A.B.<br>(Western College) 1910<br>Master of Arts (Botany)                        |
| DANIEL MILTON BRUMFIEL, A.B.<br>(Lombard College) 1912<br>Master of Arts (Entomology)      | JAY KARL DITCHY, A.B.<br>(University of Michigan) 1911<br>Master of Arts (Romance Languages)             |
| WALTHER ALBERT BUCHEN, A.B.<br>(University of Wisconsin) 1911<br>Master of Arts (English)  | EDWARD SAMUEL DOWELL, A.B.<br>(Oberlin College) 1910<br>Master of Arts (Political Science)               |
| RUTH MITCHELL BURNS, A.B., 1911<br>Master of Arts (English)                                | WILLARD CLARKE EELLS, B.S., 1911<br>Master of Science (Theoretical and Applied Mechanics)                |
| BERTON EUGENE CARMICHAEL, B.S., 1905<br>Master of Science (Animal Husbandry)               |                                                                                                          |

- KARL JOHN THEODORE EKBLAW, B.S., 1909  
Master of Science (Mechanical Engineering)
- ABSALOM C ERDAHL, A.B.  
(*St. Olaf College*) 1911  
Master of Arts (Germanic Languages)
- OLA MATTIE JOSEPHINE ESKELSON, B.S.  
(*Hedding College*) 1912  
Master of Science (Mathematics)
- SILAS EDGAR FARQUHER, B.S.  
(*Earlham College*) 1909  
Master of Science (Botany)
- IRA WILLIAM FISK, B.S., 1909  
Master of Science (Electrical Engineering)
- CHESTER CHARLES FOWLER, B.S., 1909  
Master of Science (Chemistry)
- JULIUS LUDWIG GOEBEL, JR., A.B., 1912  
Master of Arts (Political Science)
- HARRISON FREDERICK GONNERMAN, B.S., 1908  
Master of Science (Theoretical and Applied Mechanics)
- BYNE FRANCES GOODMAN, A.B., 1912  
Master of Arts (History)
- SAPPHO CECELIA GRAHAM, A.B.  
(*Iowa State University*) 1911  
Master of Arts (German)
- RUBY MABEL GRIMES, A.B.  
(*Yankton College*) 1911  
Master of Arts (Mathematics)
- MARY ANNA HAAN, A.B., 1912  
Master of Arts (Classics)
- HOMER HALL, A. B., 1912  
Master of Arts (English)
- ALFRED CHESTER HANFORD, A.B., 1912  
Master of Arts (Political Science)
- WILLIAM GRIFFITH HILL, A.B.  
(*Carthage College*) 1912  
Master of Arts (English)
- CLYDE MONROE HOBART, A.B., 1912  
Master of Arts (Philosophy)
- CHARLES ELMER HOLLEY, A.B., 1912  
Master of Arts (Education)
- NELLIE NANCY HORNOR, A.B., 1912  
Master of Arts (Physics)
- HAROLD ALLEN HOUSTON, B.S.  
(*Purdue University*) 1911  
Master of Science (Railway Engineering)
- JOSEPH WHITNEY HOWARD, A.B.  
(*Shurtleff College*) 1912  
Master of Arts (Chemistry)
- JOSEPH EARL HUBER, B.S., 1912  
Master of Science (Civil Engineering)
- HENRY LAWRENCE HUENINK, A.B.  
(*Carroll College*) 1911  
Master of Science (Chemistry)
- RAY STILLMAN HULCE, B.S.A.  
(*University of Wisconsin*) 1911  
Master of Science (Dairy Husbandry)
- PAUL WESLEY IVEY, A.B.  
(*Lawrence College*) 1912  
Master of Arts (Economics)
- HELEN DICKSON JAMES, A.B., 1910  
Master of Arts (German)
- GENJIRO JINGUJI, B.S., 1912  
Master of Science (Electrical Engineering)
- GERTRUDE AMELIA JOHNSON, B.S.  
(*Northwestern University*) 1911  
Master of Science (Zoology)
- OLIVER KAMM, B.S., 1911  
Master of Science (Chemistry)
- DONALD DEE KIRK, A.B., 1911  
Master of Arts (Economics)
- IPPEI KIYOHARA, B.S.  
(*Washington State College*) 1911  
Master of Science (Electrical Engineering)
- ELWIN VALENTINE KRATZ, B.S., 1912  
Master of Science (Architectural Engineering)
- GRETCHEN KATHERINE LUTZ, A.B.  
(*Albion College*) 1909  
Master of Arts (German)
- JANET MALCOLM MACDONALD, A.B.  
(*Morningside College*) 1910  
Master of Arts (Classics)
- WALLACE MACFARLANE, B.S.  
(*University of Utah*) 1910  
Master of Science (Agronomy)
- OSCAR ROSS MARTIN, A.B.  
(*Central Wesleyan College*) 1907  
Master of Arts (Economics)
- MAYNE SEGUINE MASON, B.S., 1911  
Master of Science (Electrical Engineering)
- JAY EARLL MILLER, A.B., LL.B.  
(*University of Kansas*) 1910, 1912  
Master of Arts (History)
- ROLAND NORTON MILLER, A.B.  
(*Lawrence College*) 1911  
Master of Science (Chemistry)
- HAROLD HANSON MITCHELL, A.B., 1909  
Master of Science (Chemistry)
- EDNA MOSHER, B.S.A.  
(*Cornell University*) 1908  
Master of Science (Entomology)
- WILLIAM EARL MOSHER, Ph.B., M.E.  
(*Syracuse University*) 1909, 1911  
Master of Science (Mechanical Engineering)
- FRED WEANER MUNCIE, A.B.  
(*Wabash College*) 1910  
Master of Science (Chemistry)
- THOMAS EDGAR MUSSELMAN, A.B., 1910  
Master of Arts (Zoology)
- JONAS BERNARD NATHANSON, A.B.  
(*Ohio State University*) 1912  
Master of Arts (Physics)
- JOSEPH ALLAN NEVINS, A.B., 1912  
Master of Arts (English)
- FRANK GARN NORBURG, A.B.  
(*Illinois College*) 1912  
Master of Arts (Chemistry)
- RUDOLPH HANS NOTTELMANN, A.B.  
(*Monmouth College*) 1912  
Master of Arts (History)
- PETER JOHN OLSON, B.S.  
(*North Dakota Agricultural College*) 1910  
Master of Science (Agronomy)



- JAMES ASBURY PALMER, A.B., A.M.  
(*Shurtleff College*) 1897, 1901  
Master of Arts (Classics)
- ARTHUR FREDERIC PEINE, A.B.  
(*Illinois Wesleyan University*) 1911  
Master of Arts (History)
- WILLIAM WARREN PETERS, A.B., M.S.  
(*Knox College*) 1911, 1912  
Master of Science (Electrical Engineering)
- ALVAH PETERSON, B.S.  
(*Knox College*) 1911  
Master of Arts (Entomology)
- BENJAMIN SALISBURY PFEIFFER, B.S., 1912  
Master of Science (Electrical Engineering)
- DAVID CHANDLER PRINCE, B.S., 1912  
Master of Science (Electrical Engineering)
- OSCAR ALAN RANDOLPH, B.S.  
(*Missouri School of Mines*) 1911  
Master of Science (Physics)
- EDWARD MELVILLE RHODES, LL.B., B.S., 1900, 1912  
Master of Science (Agronomy)
- GEORGE RUTLEDGE, A.B., 1910  
Master of Arts (Mathematics)
- CORNELIA RUTH SEAWELL, A.B.  
(*Greenville College*) 1912  
Master of Arts (Classics)
- ROBERT ST. CLARE SEESE, B.S., 1912  
Master of Science (Electrical Engineering)
- CARL PAXSON SHERWIN, B.S.  
(*John B Stetson University*) 1909;  
A.M. (*Indiana State University*) 1912  
Master of Science (Chemistry)
- SIEBOLT LUKE SIMMERING, B.S.  
(*University of Colorado*) 1910  
Master of Science (Mechanical Engineering)
- ALEXANDER McDUGALL SIMONS, B.S., 1912  
Master of Science (Electrical Engineering)
- MARY MARGARET SPANGLER, A.B., 1911  
Master of Arts (English)
- MITSUTAKA TAKAHASHI, B.E.E.  
(*Tokyo Higher Technical School*) 1904  
Master of Science (Electrical Engineering)
- WARD HASTINGS TAYLOR, A.B., 1910  
Master of Arts (Mathematics)
- DAVID GROSH THOMPSON, A.B.  
(*Northwestern University*) 1911  
Master of Arts (Geology)
- YING-HSUAN HSUWEN TSOU, B.S.  
(*Cornell University*) 1912  
Master of Science (Entomology)
- ARCHIBALD BEEBE VAN DEUSEN, B.S., 1912  
Master of Science (Electrical Engineering)
- LILY BELLE VOEGELEIN, A.B.  
(*Northwestern College*) 1912  
Master of Arts (Classics)
- EDWARD HARDENBERGH WALDO, A.B.  
(*Amherst College*) 1888; M.E.  
(*Cornell University*) 1890  
Master of Science (Electrical Engineering)
- MARGARET WASHINGTON, A.B.  
(*Smith College*) 1912  
Master of Arts (Entomology)
- MINNIE ELIZABETH WATSON, A.B.  
(*Olivet College*) 1909  
Master of Science (Zoology)
- ORPHA MAY WELLMAN, A.B., 1911  
Master of Arts (English)
- FRANK GARDNER WILLSON, B.S.  
(*University of Wisconsin*) 1903  
Master of Science (Electrical Engineering)
- FREDERICK WESTON WILSON, B.S.  
(*Kansas State Agricultural College*) 1905  
Master of Science (Animal Husbandry)
- PAUL STANLEY WOODWARD, B.S.  
(*John B Stetson University*) 1908  
Master of Science (Chemistry)
- JAMES ELLSWORTH WOOTERS, Ph.B.  
(*Blackburn College*) 1908  
Master of Arts (Education)
- PHILIP QUINCY WRIGHT, A.B.  
(*Lombard College*) 1912  
Master of Arts (Political Science)
- FRANK ARCHIBALD WYATT, B.S.  
(*Agricultural College of Utah*) 1910  
Master of Science (Agronomy)
- ADOLPH EDUARD ZUCKER, A.B., 1912  
Master of Arts (German)

### PROFESSIONAL DEGREES IN ENGINEERING

*Conferred June 11, 1913*

- CLEM C AUSTIN, B.S., 1907; Mechanical Engineer
- EDGAR FRANCIS COLLINS, B.S., 1898; Electrical Engineer
- ARTHUR FRANCIS COMSTOCK, B.S., 1906; Civil Engineer
- LOUIS ENGELMANN FISCHER, B.S., 1898; Civil Engineer
- HARRY GRAY HAKE, B.S., M.S., 1907, 1910; Electrical Engineer
- LEONARD VAUGHAN JAMES, B.S., M.S., 1906, 1912; Electrical Engineer
- AMUND MARIUS KORSMO, B.S., 1909; Civil Engineer
- THOMAS ARMSTRONG PEEBLES, B.S., 1906; Mechanical Engineer
- WILLIAM HORACE RAYNER, B.S., 1909; Civil Engineer
- WILLIAM WALTER SMITH, A.B., B.S., 1900, 1907; Civil Engineer
- CHARLES DIETRICH WESSELHOEFT, B.S., 1902; Electrical Engineer
- TRYGVE D YENSEN, B.S., M.S., 1907, 1912; Electrical Engineer

## DEGREE OF DOCTOR OF PHILOSOPHY

Conferred June 11, 1913

- JAMES EDWARD ACKERT, A.B., A.M., 1909, 1911 (Zoology)  
*Thesis:* The Innervation of the Integument of Chiroptera
- FREDERICK HENRY ADLER, A.B. (*Ohio State University*) 1909; A.M., 1911  
 (German)  
*Thesis:* Herder and Klopstock
- PHILIP STEPHAN BARTO, A.B., A.M., 1906, 1910 (German)  
*Thesis:* Tanhäuser and the Venusberg
- JAMES EDGAR BELL, B.S. (*University of Chicago*) 1905 (Chemistry)  
*Thesis:* An Improved Method for Determining the Equivalent Conductances of Strong Electrolytes at Infinite Dilution
- JOSEPHINE ELIZABETH BURNS, A.B., A.M., 1909, 1911 (Mathematics)  
*Thesis:* The Abstract Definitions of the Groups of Degree Eight
- GEORGE WILLIAM DOWRIE, A.B. (*Lake Forest College*) 1901; A.M. (*University of Chicago*) 1907 (Economics)  
*Thesis:* The Development of Banking in Illinois, 1817-1863
- HUGH GLASGOW, A.B., 1908 (Entomology)  
*Thesis:* The Gastric Caeca and the Caecal Bacteria of Heteroptera
- ROBERT DOUGLASS GLASGOW, A.B., 1908 (Entomology)  
*Thesis:* Relations and Distribution of Phyllophaga Harris (*Lachnosterna Hope*) in Temperate North America
- JOHN WALTER GOOD, A.B. (*Erskine College*) 1902; A.M., 1904 (English)  
*Thesis:* Studies in the Milton Tradition
- JOHN WESLEY HORNBECK, B.S. (*Illinois Wesleyan University*) 1906; A.M., 1909 (Physics)  
*Thesis:* Thermal and Electrical Conductivities of the Alkali Metals
- LOYD FRANCIS NICKELL, A.B., A.M., 1909, 1911 (Chemistry)  
*Thesis:* Derivatives of Isocamphoric Acid, Decomposition of Isodihydroaminocampholytic Acid with Nitrous Acid
- RALPH SYDNEY POTTER, A.B. (*Lake Forest College*) 1909; M.S., 1911 (Chemistry)  
*Thesis:* Molecular Rearrangements in the Camphor Series. Structure of the Amino Acids
- SUSAN MARTHA REED, A.B. (*Mt. Holyoke College*) 1907; A.M., 1908 (History)  
*Thesis:* Church and State in Massachusetts, 1691-1740
- CLARISSA RINAKER, A.B. (*Blackburn College*) 1903; A.M., 1911 (English)  
*Thesis:* Thomas Wharton, A Biographical and Critical Study
- QUEEN LOIS SHEPHERD, A.B. (*Northwestern University*) 1907; A.M. (*University of Wisconsin*) 1910 (Philosophy)  
*Thesis:* The Nature of Objectivity
- CHARLES MANFRED THOMPSON, A.B., A.M., 1909, 1910 (History)  
*Thesis:* Origin and Development of the Whig Party in Illinois 1834-1845
- HARLEY JONES VAN CLEVE, B.S. (*Knox College*) 1909; M. S., 1910 (Zoology)  
*Thesis:* Studies on Cell Constancy in *Neorhynchus* with Descriptions of New Species in that Genus
- IRMA ELIZABETH VOIGHT, A.B., A.M., 1910, 1911 (German)  
*Thesis:* Mrs. Robinson (Talvj): An Interpreter of German Culture in America
- PAUL SMITH WELCH, A.B. (*James Millikin University*) 1910; A.M., 1911 (Zoology)  
*Thesis:* Studies on the Enchytraeidae of North America
- GUY YANDALL WILLIAMS, A.B., A.M. (*University of Oklahoma*) 1906, 1910; M.S. (*University of Chicago*) 1911 (Chemistry)  
*Thesis:* The Dependence of Ionic Mobility on the Viscosity of the Medium



# FELLOWS AND SCHOLARS IN THE GRADUATE SCHOOL

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1913-1914

ALICE LOUISE AUSTIN, Scholar in the Classics (*Nominee of Monmouth College*).  
PAUL LEVERN BAYLEY, Scholar in Physics  
JEFFERSON HALL BELT, Research Fellow in Electrical Engineering (Engineering  
Experiment Station)  
LILLIAN BLAYNEY, Scholar in History  
ALEXANDER RUDOLPH BRANDNER, Scholar in Architecture  
ROBERT WESLEY BROWN, Fellow in Geology  
LOIS ADELINE BROWN, Scholar in English (*Nominee of James Millikin Uni-  
versity*)  
WILLIAM ERNEST CARROLL, Fellow in Animal Husbandry  
FRED EMERSON CLARK, Fellow in Economics  
HELEN CLARK, Scholar in Psychology  
JESSE LEROY CONEL, Fellow in Zoology  
WILLIAM WALTER CORT, Fellow in Zoology  
LOIS MIRIAM COULTAS, Scholar in German (*Nominee of Illinois Woman's Col-  
lege*)  
HELEN ISABEL CUSHING, Scholar in Philosophy (*Nominee of Lake Forest  
College*)  
IDA BELLE DEWEY, Scholar in English (*Nominee of Rockford College*)  
STANLEY PRINCE FARWELL, Fellow in Electrical Engineering  
LEWIS NEBINGER FISHER, Scholar in Theoretical and Applied Mechanics  
STANLEY BLACK FRACKER, Fellow in Entomology  
PHILIP GARMAN, Scholar in Entomology  
ELIZABETH MAE GITTINS, Fellow in Zoology  
JOHN EARL GUTBERLET, Fellow in Zoology  
HARRY FIELDING HADLEY, Research Fellow in Industrial Chemistry (Engineer-  
ing Experiment Station)  
OSCAR EDWARD HARDER, Fellow in Chemistry  
ALO ALOICE HASKETT, Scholar in the Classics (*Nominee of Illinois Wesleyan  
University*)  
ARCHIE OLIVER HECK, Scholar in Mathematics (*Nominee of Hedding College*)  
EDWARD OTTO HEUSE, Fellow in Chemistry  
CHARLES ELMER HOLLEY, Fellow in Education  
JOSEPH WHITNEY HOWARD, Fellow in Chemistry  
NELLE LOUISE INGELS, Scholar in Mathematics  
MORRIS JOHNSON KERNALL, Fellow in Zoology  
JESSIE JUNE KILE, Scholar in History  
EDWARD AUGUST THEODORE KIRCHER, Fellow in Mathematics  
CHARLES KELLEY KNIGHT, Scholar in Economics  
VIOLA EMMA KNOCHE, Scholar in German (*Nominee of Northwestern College*)  
BURLEY FRANK LAMB, Scholar in Economics  
CYRUS WILLIAM LANTZ, Scholar in Botany  
MATTHEW LAWRENCE, Scholar in History (*Nominee of Shurtleff College*)  
PHILIP AUGUSTUS LEHENBAUER, Fellow in Botany  
WARREN LINCOLN, Scholar in Animal Husbandry  
RUDOLPH McDERMET, Research Fellow in Electrical Engineering (Engineering  
Experiment Station)  
WALLACE MACFARLANE, Fellow in Agronomy  
HAROLD HOSSACK MCGREGOR, Fellow in Chemistry  
EDWARD LAWRENCE MCKENNA, Scholar in Economics  
GEORGE ALFRED MANEY, Research Fellow in Theoretical and Applied Mechan-  
ics

HOWARD MATHEWS, Scholar in Electrical Engineering (Engineering Experiment Station)  
LOUIS CLARK MATHEWSON, Fellow in Mathematics  
LOIS MAIA MILES, Scholar in the Classics  
EARL BOWMAN MILLARD, Fellow in Chemistry  
J EARL MILLER, Fellow in History  
JESSIE FAY MILLER, Scholar in the Classics  
JULIAN MONTGOMERY, Research Fellow in Theoretical and Applied Mechanics (Engineering Experiment Station)  
MERLE LOUIS NEBEL, Research Fellow in Mining Engineering (Engineering Experiment Station)  
KARR PARKER, Scholar in Chemistry (*Nominee of Carthage College*)  
NEWTON LYMAN PARTRIDGE, Scholar in Entomology  
DANIEL FREDERICK PASMORE, Scholar in German  
PAUL ALEXANDER PAULSON, Scholar in Chemistry (*Nominee of Augustana College*)  
ARTHUR FREDERICK PEINE, Fellow in History  
ROBERT BEDFORD POGUE, Research Fellow in Railway Engineering (Engineering Experiment Station)  
SAMUEL HAWKINS RAY, Scholar in Animal Husbandry  
HARRY PAYNE REEVES, Scholar in Romance Languages  
FREDERICK ARTHUR RUSSELL, Fellow in Economics  
OTTO PAUL SCHINNERER, Scholar in German  
WALTER ANDREW SHEWHART, Scholar in Physics  
THEKLA MARIA SIEBENS, Scholar in German  
\*RAYMOND STRATTON SMITH, Scholar in Agronomy (*Nominee of College of Agriculture*)  
WAYNE EDSON STEVENS, Scholar in History (*Nominee of Knox College*)  
CLAUDE NEWTON STOKES, Scholar in Mathematics (*Nominee of McKendree College*)  
WARD WILLIAM SULLIVAN, Scholar in History  
MARGARET KATHERINE THEILEN, Scholar in History  
HOWARD RICE THOMAS, Research Fellow in Theoretical and Applied Mechanics (Engineering Experiment Station)  
EDNA AMELIA THOREEN, Scholar in German (*Nominee of Lombard College*)  
MABEL ELIZABETH THORNE, Scholar in Mathematics (*Nominee of College of Science*)  
LILY BELLE VOEGELEIN, Fellow in Classics  
MINNIE ELIZABETH WATSON, Fellow in Zoology  
ALLEN SAGE WILBER, Scholar in Political Science  
WILLIAM HAROLD WILSON, Scholar in Mathematics  
WALTER JACOB WOHLLENBERG, Research Fellow in Mechanical Engineering (Engineering Experiment Station)  
HERMAN CARL WOLF, Scholar in Electrical Engineering  
WILLIAM SIDNEY WOLFE, Scholar in Architectural Engineering (*Nominee of College of Engineering*)  
QUINCY WRIGHT, Fellow in Political Science  
FRANK ARCHIBALD WYATT, Fellow in Agronomy

## THE FRANCIS JOHN PLYM FELLOWSHIP IN ARCHITECTURE

MAX ALFRED MONTGOMERY, 1912

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\*Withdrawn



# UNIVERSITY HONORS

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1912-1913

AWARDED BY THE FACULTY OF THE UNIVERSITY FOR SCHOLARSHIP

*HONORS AT COMMENCEMENT*

*(June, 1913)*

COLLEGE OF LITERATURE AND ARTS

THE DEGREE OF A.B. WITH HONORS

LOUIS ALLEN, in French  
JESSIE FAY MILLER, in Latin

LENA JOSEPHINE MYERS, in English  
HARWELL CLOUD THOMPSON, in Economics

COLLEGE OF SCIENCE

FINAL HONORS

ERNEST MICHAEL RUDOLPH LAMKEY  
CYRUS WILLIAM LANTZ  
EUGENE HENDRICKS LESLIE  
ALMA JESSIE NEILL

MILDRED CLAYTON SEYSTER  
ROSCOE RAYMOND SNAPP  
EVERETT HARVEY TAYLOR  
MABEL ELIZABETH THORNE

CHIA CHEOW YEN

SPECIAL HONORS

ROBERT BACK, in Ceramic Engineering  
EUGENE HENDRICKS LESLIE, in Chemical Engineering  
CHARLES CLAFLIN RAND, in Ceramic Engineering

COLLEGE OF ENGINEERING

FINAL HONORS

HENRY STILLMAN BADGER  
PAUL THEODORE BOCK  
ALEXANDER RUDOLPH BRANDNER  
HARRY B COOLEY  
ELWIN RAY COOLIDGE  
ALBERT STEVENS FRY  
EVERETT SAMUEL LEE  
HOWARD MATHEWS  
GEORGE WILLIAM MAYES

CHARLES BABCOCK MCGREW  
MERLE LOUIS NEBEL  
EDWARD ERNEST REDDERSEN  
ARTHUR LOUIS RICHE  
FRANK CHARLES ROHRBOUGH  
LLOYD GASTON SMITH  
LYMAN GAGE WHEELER  
HARRY ANTHONY WIERSEMA  
WILLIAM SIDNEY WOLFE

SPECIAL HONORS

PAUL THEODORE BOCK, in Civil Engineering  
HARRY B COOLEY, in Architectural Engineering  
ALBERT STEVENS FRY, in Civil Engineering  
ARTHUR LOUIS RICHE, in Electrical Engineering  
HARRY ANTHONY WIERSEMA, in Architectural Engineering

COLLEGE OF AGRICULTURE

FINAL HONORS

CHARLES AUSTIN ATWOOD  
MAURICE ROBERT BEBB  
ARTHUR MAXWELL BRUNSON  
ERNEST MCCHESENEY CLARK  
JAMES RUSSELL DILWORTH

HARRISON FRED THEODORE FAHRNKOPF  
ELMER ROBERTS  
CHARLES BOVETT SAYRE  
RAYMOND STRATTON SMITH  
ROSCOE RAYMOND SNAPP

SCHOOL OF MUSIC

FINAL HONORS

MAUD DENNEY

SPECIAL HONORS

ARTHUR EVERETT HOLCH

COLLEGE OF LAW

FINAL HONORS

EVERETT LESLIE DALBEY

WILLIAM DUDLEY PAUL FARTHING  
EMIL JOSEPH VERLIE

LIBRARY SCHOOL

FINAL HONORS

NELLIE MABEL ROBERTSON

PRELIMINARY HONORS

(November, 1913)

COLLEGE OF LIBERAL ARTS AND SCIENCES

PEMBROKE HOLCOMB BROWN  
BEATRICE VIRGINIA COPLEY  
ALWIN CLYDE EIDE  
FAY EDWARD FAULKNER  
CLARE CURTIS GAMBLE  
ALTA GREEN  
LOIS MYRTLE HARRIS  
ALFRED MARTIN HEINZELMANN  
ARTHUR HERMAN HUISKEN  
HADDON SPURGEON KIRK

RUTH HELEN LANCASTER  
GEORGE BURR McMILLAN  
INA VALERIA MEREDITH  
IRENE BALFOUR OLIN  
GRACE CASTELLO POPE  
GEORGE BENJAMIN RUBY  
MARIE SAVAGE  
HORACE ABBOTT SHONLE  
HELEN WALLER WEBBER  
BENJAMIN WHAM

VIOLA ESTHER WOLFE

COLLEGE OF ENGINEERING

WALTER GEORGE ALTPETER  
HAROLD EMERY AUSTIN  
GEORGE HOWLAND BUTLER  
IRL REUBEN CLINE  
RICHARD NEWELL COOLIDGE  
BERNHARD ERNST GEORGE DIRKS  
HENRY DUBIN  
LEO ESLICK  
ALDEN KNOWLTON FOGG  
RALPH GREEN  
ROLAND EVERETT GREENBURG  
MAX HOLMBURGER, JR.  
EDWARD ALLEN JAMES

LLOYD DUNAWAY KNAPP  
FREDERICK AUGUST KUHS MARX  
JOHN HAROLD MILLER  
RALPH LEONARD MORRELL  
WALTER STEPHEN NELSON  
FERDINAND THEODORE RITTER  
HARRY BARRETT ROGERS  
CARL LEE SHERMAN  
PERRY JEROME SWEENEY  
MILO CORNELIUS TAYLOR  
ROBERT ELLSWORTH THOMAS  
GEORGE WILLIAM WATTS  
EDWARD ALLEN WILLIFORD

BARTON EDWARD WITCHELL



## COLLEGE OF AGRICULTURE

BARTON SLADE AUSTIN  
HARRY FRANK COGDALL  
AUGUSTUS HENRY GRUNEWALD, JR.  
ROBERT BRUCE HINMAN  
JOSEPH FREDERICK ROMINE  
THOMAS ALLEN ROSS

MAYNARD ELMER SLATER  
VICTOR ELWIN SPENCER  
WAYNE MCKENZIE STEVENS  
LAWRENCE EMERSON THORNE  
ROGER THOMAS WELSH  
WARNER FRANK WHIPPEL

## COLLEGE OF LAW

WESLEY ERETT CUMMINS  
BENJAMIN FRANKLIN ANDERSON

FRED ALAN DUHADWAY  
HERBERT WILLIAM BYE

## MILITARY HONORS

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### COMMISSIONS AS BREVET CAPTAINS, ILLINOIS NATIONAL GUARD, ISSUED BY THE GOVERNOR IN 1913

EUGENE HENDRICKS LESLIE  
 HOWARD CHRISTOPHER HOHMAN  
 HARWELL CLOUD THOMPSON  
 CHARLES RUSH HORRELL  
 JAMES FEARSON BROWN  
 WILBER JEROME CARMICHAEL  
 LEWIS BROWN ERMELING  
 CLEAVER THAYER  
 FREDERICK MORTIMER ATKINSON  
 RALPH ULINE NICHOLS  
 ALLEN WINSLOW DAVIS  
 CHARLES ABRAHAM WOLD  
 ROGER CHARLES KIRCHHOFF  
 FRANK XAVIER LOEFFLER

MILTON GEORGE HENRY SEVERINGHAUS  
 IRVING RANDOLPH RUBY  
 MERLE LOUIS NEBEL  
 WILLIAM KING PALMER  
 EDWARD ANTON GLENZ  
 WILLIAM ORUS ANDREWS  
 JEROME FRANCIS KOHOUT  
 CARL ARTHUR SCHOESSEL  
 MARCUS PREVOST TAYLOR  
 CARLETON WILLARD GATES  
 CHARLES BOVETT SAYRE  
 NEWTON LYMAN PARTRIDGE  
 GUERNEY HILL COLE  
 ERNEST ALBERT RICH

### REPORTED TO THE ADJUTANT GENERAL, UNITED STATES ARMY, AS DISTINGUISHED CADETS

EUGENE HENDRICKS LESLIE  
 HOWARD CHRISTOPHER HOHMAN  
 HARWELL CLOUD THOMPSON  
 CHARLES RUSH HORRELL ..  
 JAMES FEARON BROWN  
 WILBER JEROME CARMICHAEL

LEWIS BROWN ERMELING  
 CLEAVER THAYER  
 ROGER CHARLES KIRCHHOFF  
 IRVING RANDOLPH RUBY  
 MILTON GEORGE HENRY SEVERINGHAUS  
 CHARLES BOVETT SAYRE

MARCUS PREVOST TAYLOR

### ROSTER OF OFFICERS AND NON-COMMISSIONED OFFICERS OF THE UNIVERSITY CORPS OF CADETS, 1913-14

|                                           |                 |
|-------------------------------------------|-----------------|
| Colonel.....                              | C. H. Westcott  |
| Lieutenant Colonel .....                  | E. C. Prouty    |
| Captain and Regimental Adjutant.....      | E. H. Berry     |
| Captain and Regimental Quartermaster..... | F. J. Giehler   |
| Captain and Regimental Commissary.....    | O. F. Foster    |
| Regimental Sergeant Major.....            | J. A. Chase     |
| Regimental Quartermaster Sergeant.....    | E. C. Swartwout |
| Regimental Commissary Sergeant.....       | R. R. Thomas    |
| Regimental Color Sergeant.....            | W. L. Rohlfing  |
| Regimental Color Sergeant.....            | George Curtiss  |

#### FIRST BATTALION

|                                          |              |
|------------------------------------------|--------------|
| Major.....                               | H. E. Howes  |
| First Lieutenant and Adjutant.....       | J. N. Greene |
| Second Lieutenant and Quartermaster..... | A. M. Baker  |
| Sergeant Major.....                      | C. C. Chase  |



| <i>Company A</i> |                  | <i>Company B</i> |                  |
|------------------|------------------|------------------|------------------|
| Captain,         | E. K. Augustus   | Captain,         | F. H. Bergland   |
| 1st Lieut.,      | E. C. Elles      | 1st Lieut.,      | F. T. Ritter     |
| 2nd Lieut.,      | H. K. Sheldon    | 2nd Lieut.,      | H. E. Barden     |
| 1st Sergt.,      | M. Dresser       | 1st Sergt.,      | M. C. Johnson    |
| Sergeants,       | A. E. Benson     | Sergeants,       | H. A. Cadle      |
|                  | J. L. Bundy      |                  | B. M. Kisselburg |
|                  | W. K. McCracken  |                  | S. Morgan        |
|                  | J. J. O'Meara    |                  | E. A. Bebb       |
|                  | W. H. Beal       |                  | E. Fisher        |
|                  | E. G. Ernst      |                  | E. M. Woodward   |
|                  | J. Whitnel       | Corporals,       | J. P. Pinckley   |
| Corporals,       | E. Pihlgard      |                  | L. D. Bunting    |
|                  | O. S. Buckner    |                  | E. Forster       |
|                  | E. M. Harsch     |                  | J. P. Haskell    |
|                  | F. Junkunz       |                  | L. G. McAfee     |
|                  | F. A. Rohn       |                  | H. Rotrock       |
|                  | W. M. Sutherland |                  | L. W. Swett      |
|                  | F. E. Bloom      |                  |                  |
| <i>Company C</i> |                  | <i>Company D</i> |                  |
| Captain          | E. L. Hasker     | Captain,         | E. A. Doisy      |
| 1st Lieut.,      | J. C. Hostetler  | 1st Lieut.,      | B. H. Decker     |
| 2nd Lieut.,      | E. J. Bartz      | 2nd Lieut.,      | G. D. Stopp      |
| 1st Sergt.,      | W. H. Hough      | 1st Sergt.,      | D. T. Carlisle   |
| Sergeants,       | L. E. Lamkins    | Sergeants,       | L. J. Ludwig     |
|                  | D. J. Campbell   |                  | C. J. North      |
|                  | C. W. Lenzing    |                  | P. L. Pearson    |
|                  | W. L. Parish     |                  | E. G. Brandner   |
|                  | C. Berkenbeuel   |                  | R. M. Seeley     |
|                  | R. S. Scholl     |                  | S. M. Trumbo     |
| Corporals,       | T. S. Simmons    | Corporals,       | N. R. Swanson    |
|                  | C. R. Haskett    |                  | F. O. Carroll    |
|                  | A. R. Keller     |                  | P. W. Freark     |
|                  | J. H. McCormack  |                  | G. S. Hedrick    |
|                  | L. E. Mulac      |                  | A. E. McCoy      |
|                  | R. W. Ruth       |                  | A. J. Nolan      |
|                  |                  |                  | H. G. Sawyer     |
|                  |                  |                  | C. F. Thomas     |

## SECOND BATTALION

|                                          |               |
|------------------------------------------|---------------|
| Major.....                               | H. P. Ousley  |
| First Lieutenant and Adjutant.....       | R. S. Mason   |
| Second Lieutenant and Quartermaster..... | S. S. Davis   |
| Sergeant Major.....                      | W. R. Fischer |

| <i>Company A</i> |                 | <i>Company B</i> |                |
|------------------|-----------------|------------------|----------------|
| Captain,         | H. O. Danz      | Captain,         | W. J. Blum     |
| 1st Lieut.,      | C. P. Fletcher  | 1st Lieut.,      | H. C. Webster  |
| 2nd Lieut.,      | W. C. Armstrong | 2nd Lieut.,      | E. R. Dillavou |
| 1st Sergt.,      | R. E. Denz      | 1st Sergt.,      | R. D. Barnes   |
| Sergeants,       | C. W. McCumber  | Sergeants,       | R. W. Millar   |
|                  | R. A. Godehn    |                  | A. C. Goff     |
|                  | L. R. Lumley    |                  | H. W. Dodge    |
|                  | W. W. Polk      |                  | E. W. Rapp     |
|                  | R. H. Brooks    |                  | W. K. Porter   |
|                  | C. A. Zelle     |                  | A. W. Brown    |
|                  |                 |                  | W. W. Sheldon  |

Corporals, O. H. Anderson  
R. D. V. Castle  
H. C. Helm  
O. A. Kemp  
J. M. McKeon  
C. N. Owen  
A. E. Tillson

*Company C*  
Captain, W. J. Bublitz  
1st Lieut., L. H. Dunham  
2nd Lieut., A. H. Huisken  
1st Sergt., E. C. O. Beatty  
Sergeants, E. W. Noxon  
H. J. Harsh  
L. J. Rust  
L. W. Reese  
Bayard Brown  
E. F. Sladek  
Corporals, W. E. Baker  
H. C. Coleman  
L. E. Herget  
C. A. Klein  
O. C. Markwell  
A. F. Pauli

Corporals, C. O. Armstrong  
H. E. Clark  
E. T. Gants  
R. H. Klamt  
G. W. Mahn  
J. L. Oyler  
O. Schuette  
G. O. Tinkey

*Company D*  
Captain, C. H. Thompson  
1st Lieut., C. A. Nebel  
2nd Lieut., E. A. James  
1st Sergt., J. M. Hilbert  
Sergeants, R. F. Harvey  
W. G. Emmonds  
A. V. Sheets  
T. H. Buell  
O. Staeheli  
Corporals, F. Bebb  
P. Conklin  
D. M. Glover  
R. A. Hoffman  
G. Klopp  
E. R. Martin  
W. G. Shutte  
W. Vandemark

THIRD BATTALION

Major.....P. C. Rich  
First Lieutenant and Adjutant.....A. H. Grunewald  
Second Lieutenant and Quartermaster.....G. D. Griswold  
Sergeant Major.....E. Shelby

*Company A*  
Captain, H. E. Codlin  
1st Lieut., E. H. Pool  
2nd Lieut., D. C. Scheele  
1st Sergt., S. D. Kirkpatrick  
Sergeants, C. Hattenhauer  
W. G. Eppinger  
E. A. Smith  
H. H. Roberts  
A. G. Steinmayer  
Corporals, P. A. Biendorf  
B. T. Curtis  
C. T. Grant  
H. E. Hogan  
K. Parkinson  
E. D. Wallace

*Company C*  
Captain, H. S. Mueller  
1st Lieut., I. R. Cline  
2nd Lieut., R. L. Herman  
1st Sergt., D. E. Miller  
Sergeants, A. C. Zimmerman  
J. H. Gage  
G. L. Schaller  
E. W. Cobb  
H. F. Stocker

*Company B*  
Captain, H. P. Vandercook  
1st Lieut., R. R. Zipprodt  
2nd Lieut., C. W. Lincoln  
1st Sergt., E. G. Lauterbach  
Sergeants, J. F. Hedgcock  
B. W. Fairbanks  
J. D. Snook  
R. D. Rogers  
C. W. Clover  
A. H. Stevens  
Corporals, C. F. Belshaw  
C. Dietmier  
J. E. Grayhack  
A. C. Holinger  
L. J. Mattingly  
L. D. Smiley

*Company D*  
Captain, J. C. Palmer  
1st Lieut., L. D. Knapp  
2nd Lieut., G. H. Butler  
1st Sergt., L. R. Gurley  
Sergeants, R. V. Waller  
G. E. Hirt  
G. R. Lunde  
R. L. Schiesswohl  
A. R. Thomas  
J. E. Fetherston



Corporals, A. S. Benson  
H. R. Dow  
L. J. Greengard  
C. Holmes  
A. E. Kraeckman  
A. E. Meatiff  
R. L. Peck  
F. H. White

Corporals, F. Bergman  
H. E. Dralle  
F. D. Griffiths  
C. J. Largent  
R. J. Mercey  
W. R. Pierson  
J. F. Smith

## FOURTH BATTALION

Major.....C. R. Velzy  
First Lieutenant and Adjutant.....L. E. Thorne  
Second Lieutenant and Quartermaster.....C. H. Berwald  
Sergeant Major.....L. A. Ettienne

*Company A*  
Captain, H. G. Wood  
1st Lieut., J. H. Miller  
2nd Lieut., C. F. Hood  
1st Sergt., W. C. Peterson  
Sergeants, O. A. Barnes  
C. R. Howe  
L. M. Gumm  
H. Mavor  
C. E. Curl  
Corporals, E. S. Block  
B. C. Eade  
C. G. Hadden  
E. W. Johnson  
C. P. Lathrop  
L. P. Metzger  
S. L. Smith  
C. W. Wray

*Company C*  
Captain, A. H. Aagaard  
1st Lieut., R. B. Hinman  
2nd Lieut., W. D. Shipman  
1st Sergt., F. M. Van Natter  
Sergeants, C. L. Bentz  
C. H. Jackman  
A. M. Kircher  
L. E. Minnis  
E. F. Barker  
H. Ellis  
W. B. Walraven  
Corporals, G. W. Bristow  
F. C. Ferguson  
J. R. Jones  
J. F. Lemp  
J. T. Mills  
B. H. Questel  
R. Steinmayer

*Signal Company*  
Captain, L. W. Faulkner  
1st Lieut., L. C. Bow  
2nd Lieut., R. W. Parker  
1st Sergt., R. W. Kritzer

*Company B*  
Captain, W. E. Bow  
1st Lieut., W. K. Norris  
2nd Lieut., A. M. Barreau  
1st Sergt., H. T. Rogers  
Sergeants, L. Becker  
H. Huntington  
F. L. Headley  
E. C. Meissler  
G. C. Baker  
B. Q. Dysart  
Corporals, C. M. Halbruge  
D. R. Jones  
E. F. Leander  
F. R. Miller  
J. E. Pyron  
V. Starner

*Company D*  
Captain, G. Meyer  
1st Lieut., M. E. Slater  
2nd Lieut., W. G. Altpeter  
1st Sergt., R. O. Wyland  
Sergeants, E. V. Bruington  
M. W. Johnson  
J. B. Lyon  
F. H. Beach  
C. P. Ernst  
G. R. White  
Corporals, W. R. Bruce  
L. G. Harris  
P. C. Jones  
R. W. Morgan  
C. Raibourn  
A. G. Stone

*Battery*  
Captain, E. R. Foster  
1st Lieut., M. E. Hoit  
2nd Lieut., R. Niver  
1st Sergt., L. A. Williford

Sergeants, R. Jarvis  
C. M. Brentlinger  
S. K. Johnson  
C. P. Ferrell  
L. E. Voorhees  
Corporals, P. H. Burkhardt  
R. C. Kane  
H. W. Mateer  
R. Mooney  
J. R. Tanner  
P. J. Nilsen  
C. R. Little

Sergeants, J. B. Pagin  
S. N. Vibelius  
S. A. Durr  
A. Semple  
J. L. Fox

### ANNUAL COMPETITIVE DRILLS—1913

Winner University Gold Medal.....Cadet Private H. W. Hollard  
Winner Hazelton Gold Medal.....Cadet Private W. R. Fischer

### INFANTRY

#### *University Bronze Medals*

(Sophomore Competitive Drill)

#### COMPANY D 1ST BATTALION, UNIVERSITY REGIMENT

Captain P. E. Buck  
1st Lieut. H. P. Ousley  
2nd Lieut. J. E. Lewis  
1st Sergt. E. H. Pool  
Sergeant A. M. Barreau  
Sergeant A. J. Benner  
Sergeant T. Plack  
Sergeant P. G. Schiesswohl  
Sergeant R. D. C. Chapman  
Corporal C. H. Apple  
Corporal W. E. Golden  
Corporal C. H. Rehling  
Corporal E. B. Stout  
Corporal B. Wham  
Lance Corporal A. W. Keese  
Lance Corporal R. M. Graves  
Private R. E. Augustus  
Private L. W. Brown  
Private J. R. Clark  
Private I. N. Clover  
Private E. A. Cooper  
Private J. G. Cox  
Private C. E. Davis  
Private S. R. Derby  
Private L. H. English  
Private E. B. Foster  
Private W. H. Goelitz  
Private W. B. Golden  
Private J. H. Gumz

Private A. G. Hecht  
Private M. E. Hewins  
Private W. T. Howe  
Private C. D. Howk  
Private L. A. Husted  
Private F. H. Kelly  
Private H. S. Kirk  
Private W. G. Knoebel  
Private S. B. Leiserwitz  
Private J. P. Lichter  
Private C. J. Martin  
Private C. V. Metzler  
Private C. A. Miller  
Private H. J. Moore  
Private H. G. Mostoller  
Private R. J. O'Brien  
Private A. A. Odell  
Private R. W. Ritchey  
Private E. U. Rugg  
Private G. M. Schaulin  
Private C. L. Sherman  
Private G. L. Simonson  
Private F. B. Staat  
Private N. C. Sullivan  
Private E. W. Thomas  
Private R. Von Voltier  
Private A. Wagner  
Private L. Warmolts  
Private O. Wood

Private C. G. Younglove



*\*University Bronze Medals and Pins*

## (Freshman Competitive Drill)

## COMPANY D 2ND BATTALION, UNIVERSITY REGIMENT

|                            |                         |
|----------------------------|-------------------------|
| Captain M. G. Severinghaus | Private C. E. Horton    |
| 1st Lieut. H. E. Codlin    | Private H. Huntington   |
| 2nd Lieut. W. J. Bublitz   | Private C. D. Johns     |
| 1st Sergt. C. E. Koch      | Private P. C. Jones     |
| Sergeant H. S. Cutting     | Private F. D. Kasserman |
| Sergeant W. O. Ratfon      | Private A. R. Keller    |
| Sergeant H. L. Cummings    | Private H. W. Lindsay   |
| Sergeant G. D. Griswold    | Private L. R. Lumley    |
| Sergeant A. E. Kidd        | Private C. B. Markman   |
| Sergeant W. T. Reace       | Private A. E. Meatiff   |
| Corporal S. Duner          | Private E. S. Miller    |
| Corporal A. B. Hammitt     | Private O. Morin        |
| Corporal L. C. Linbarger   | Private C. C. Mullen    |
| Private J. F. Brandon      | Private P. J. Nilsen    |
| Private K. G. Brown        | Private C. J. North     |
| Private T. H. Burrell      | Private J. B. Pagin     |
| Private A. C. Cook         | Private J. J. Patterson |
| Private C. Dalenberg       | Private E. C. Platofsky |
| Private C. Dietmier        | Private H. A. Pogue     |
| Private F. E. Dunlap       | Private B. E. Reinel    |
| Private R. C. Eaton        | Private H. H. Roberts   |
| Private C. J. Ellis        | Private H. T. Rogers    |
| Private J. G. Eppinger     | Private G. L. Schaller  |
| Private R. V. Fisk         | Private R. A. Schwartz  |
| Private J. L. Fox          | Private A. V. Sheets    |
| Private R. S. Fraser       | Private S. L. Smith     |
| Private O. M. Fuller       | Private O. Stene        |
| Private J. H. Gage         | Private L. W. Swett     |
| Private D. M. Glover       | Private C. F. Thomas    |
| Private P. H. Graves       | Private H. A. Timmins   |
| Private H. P. Greison      | Private E. Tobin        |
| Private C. E. Haag         | Private G. R. White     |
| Private C. J. Hanley       | Private J. Whitnel      |
| Private W. W. Hart         | Private J. F. Wright    |
| Private J. M. Hilbert      | Private R. O. Wyland    |

## ARTILLERY

*University Bronze Medals*

|                            |                       |
|----------------------------|-----------------------|
| Captain C. B. Sayre        | Private R. H. Habbe   |
| 1st Lieut. E. R. Foster    | Private W. Jasper     |
| 2nd Lieut. J. E. Churchill | Private W. T. Kile    |
| Sergeant M. E. Hoit        | Private G. C. Frazer  |
| Private W. C. Diess        | Private L. N. Gilmore |
|                            | Private J. M. McGrath |

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\*Sophomores, bronze medals; Freshmen, bronze pins

SIGNAL COMPANY

*University Bronze Medals*

|                           |                         |
|---------------------------|-------------------------|
| Captain C. W. Gates       | Private C. Kane         |
| 1st Lieut. L. W. Faulkner | Private E. F. Kent      |
| 2nd Lieut. E. R. Hatowski | Private H. W. Mateer    |
| Corporal J. A. Andrews    | Private F. A. Marx      |
| Corporal H. B. Rogers     | Private S. H. Minchin   |
| Private R. O. Barnes      | Private E. H. Schlader  |
| Private C. M. Brentlinger | Private W. Shellabarger |
| Private D. L. Frayer      | Private J. R. Tanner    |
| Private O. S. Imes        | Private L. E. Voorhees  |

RIFLE COMPETITION

*University Bronze Medals*

COMPANY A 1ST BATTALION TEAM

|                         |                       |
|-------------------------|-----------------------|
| Private E. M. Barnum    | Private D. E. Currier |
| Private J. B. Chartrand | Private W. B. Jarvis  |
|                         | Private R. C. Kastler |



# INTERCOLLEGIATE DEBATERS

1912-1913

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## IN THE CENTRAL DEBATING CIRCUIT

### *Against Minnesota*

FRANK CLIFTON SLATER  
HAROLD JAMES HOWE  
CLYDE MONROE HOBART

### *Against Nebraska*

WILLIAM EVERETT BRITTON  
ISAAC RAY CARTER  
LYMAN MARION FORT

## IN THE STATE UNIVERSITY DEBATING LEAGUE

### *Against Ohio State*

LESTER EUGENE FRAILEY  
ARTHUR LOUIS RICHEL  
FRANK BONNER LEONARD

### *Against Indiana*

WARD MAURICE WILLITS  
JOSEPH HOWARD HINSHAW  
HAROLD JAMES HOWE

## REPRESENTATIVE IN THE STATE PEACE CONTEST

FRANK CLIFTON SLATER

## REPRESENTATIVE IN THE NORTHERN ORATORICAL LEAGUE

JOSEPH HOWARD HINSHAW

# SUMMARY OF DEGREES

## Degrees in the Graduate School

|            |    |     |
|------------|----|-----|
| A.M. ....  | 54 |     |
| M.S. ....  | 53 |     |
| C.E. ....  | 5  |     |
| E.E. ....  | 5  |     |
| M.E. ....  | 2  |     |
| Ph.D. .... | 20 |     |
| Total..... |    | 139 |

## Baccalaureate Degrees

|                                           |     |     |
|-------------------------------------------|-----|-----|
| A.B., College of Literature and Arts..... | 137 |     |
| B.L., College of Literature and Arts..... | 1   |     |
| A.B., College of Science.....             | 66  |     |
| B.S., College of Science.....             | 24  |     |
| B.S., College of Engineering.....         | 179 |     |
| B.S., College of Agriculture.....         | 95  |     |
| B.Mus., School of Music.....              | 7   |     |
| Total.....                                |     | 509 |

## Degrees in Law

|            |    |    |
|------------|----|----|
| LL.B. .... | 23 |    |
| J.D. ....  | 3  |    |
| Total..... |    | 26 |

## Degrees in Library Science

|                                             |   |     |
|---------------------------------------------|---|-----|
| B.L.S. ....                                 | 8 |     |
| TOTALS, COLLEGES AND SCHOOLS IN URBANA..... |   | 682 |

## Degrees in Medicine

|           |  |     |
|-----------|--|-----|
| M.D. .... |  | 130 |
|-----------|--|-----|

## Degrees in Pharmacy

|            |    |    |
|------------|----|----|
| Ph.G. .... | 33 |    |
| Ph.C. .... | 3  |    |
| Total..... |    | 36 |

|                                    |  |     |
|------------------------------------|--|-----|
| TOTAL, DEPARTMENTS IN CHICAGO..... |  | 166 |
| TOTAL, ALL DEPARTMENTS.....        |  | 848 |



# SUMMARY OF OFFICERS

## BY COLLEGES AND SCHOOLS

1913-14

### OFFICERS OF INSTRUCTION

|                             | PROFESSORS |      | ASSOCIATE<br>PROFESSORS |      | ASSISTANT<br>PROFESSORS |      | ASSOCIATES |      |
|-----------------------------|------------|------|-------------------------|------|-------------------------|------|------------|------|
|                             | Men        | Wom. | Men                     | Wom. | Men                     | Wom. | Men        | Wom. |
| COLLEGES AND SCHOOLS        |            |      |                         |      |                         |      |            |      |
| Liberal Arts and Sciences.. | 48         | ..   | 8                       | ..   | 29                      | ..   | 15         | ..   |
| Engineering .....           | 15         | ..   | 1                       | ..   | 20                      | ..   | 14         | ..   |
| Agriculture .....           | 16         | 1    | ..                      | ..   | 13                      | 1    | 22         | 5    |
| Music .....                 | 1          | ..   | ..                      | ..   | 1                       | 1    | ..         | ..   |
| Law .....                   | 6          | ..   | ..                      | ..   | ..                      | ..   | ..         | ..   |
| Library .....               | 1          | ..   | ..                      | ..   | ..                      | 1    | ..         | 1    |
| Military Science.....       | 1          | ..   | ..                      | ..   | ..                      | ..   | ..         | ..   |
| Physical Training.....      | 1          | 1    | ..                      | ..   | ..                      | ..   | ..         | ..   |
| Totals at Urbana.....       | 89         | 2    | 9                       | ..   | 63                      | 3    | 51         | 6    |
| Medicine .....              | 30         | ..   | 9                       | ..   | 18                      | 3    | ..         | ..   |
| Dentistry .....             | 7          | ..   | ..                      | ..   | 3                       | ..   | ..         | ..   |
| Pharmacy .....              | 1          | ..   | ..                      | ..   | 2                       | ..   | ..         | ..   |
| Totals in Chicago.....      | 38         | ..   | 9                       | ..   | 23                      | 3    | ..         | ..   |
| TOTAL IN UNIVERSITY..       | 127        | 2    | 18                      | ..   | 86                      | 6    | 51         | 6    |

### OFFICERS OF ADMINISTRATION

|                                              |  |
|----------------------------------------------|--|
| General .....                                |  |
| Library Staff.....                           |  |
| TOTAL, INSTRUCTIONAL AND ADMINISTRATIVE..... |  |
| Deduct Duplicates.....                       |  |
| NET TOTAL IN UNIVERSITY.....                 |  |

# SUMMARY OF OFFICERS

## BY COLLEGES AND SCHOOLS

1913-14

| SPECIAL LECTURERS |       | INSTRUCTORS |       | ASSISTANTS |       | GRADUATE ASSISTANTS |       | STUDENT ASSISTANTS |       | TOTALS |      |       |
|-------------------|-------|-------------|-------|------------|-------|---------------------|-------|--------------------|-------|--------|------|-------|
| Men               | Wom.  | Men         | Wom.  | Men        | Wom.  | Men                 | Wom.  | Men                | Wom.  | Men    | Wom. | Total |
| 2                 | ..    | 43          | 8     | 66         | 8     | 20                  | 4     | 14                 | ..    | 245    | 20   | 265   |
| 2                 | ..    | 38          | ..    | 14         | ..    | ..                  | ..    | ..                 | ..    | 104    | ..   | 104   |
| ..                | ..    | 16          | 4     | 22         | ..    | ..                  | ..    | ..                 | ..    | 89     | 11   | 100   |
| ..                | ..    | 5           | 3     | ..         | ..    | ..                  | ..    | ..                 | ..    | 7      | 4    | 11    |
| ..                | ..    | 1           | ..    | ..         | ..    | ..                  | ..    | ..                 | ..    | 7      | ..   | 7     |
| ..                | 1     | 1           | 1     | ..         | 1     | ..                  | ..    | ..                 | ..    | 2      | 5    | 7     |
| ..                | ..    | ..          | ..    | ..         | ..    | ..                  | ..    | 8                  | ..    | 9      | ..   | 9     |
| ..                | ..    | 5           | 1     | 1          | 4     | ..                  | ..    | ..                 | 1     | 7      | 7    | 14    |
| 4                 | 1     | 109         | 17    | 103        | 13    | 20                  | 4     | 22                 | 1     | 470    | 47   | 517   |
| 3                 | ..    | 63          | 9     | 12         | ..    | ..                  | ..    | 13                 | 1     | 148    | 13   | 161   |
| 1                 | ..    | 6           | ..    | 2          | ..    | ..                  | ..    | ..                 | ..    | 19     | ..   | 19    |
| 1                 | ..    | 3           | ..    | ..         | ..    | ..                  | ..    | ..                 | ..    | 7      | ..   | 7     |
| 5                 | ..    | 72          | 9     | 14         | ..    | ..                  | ..    | 13                 | 1     | 174    | 13   | 187   |
| 9                 | 1     | 181         | 26    | 117        | 13    | 20                  | 4     | 35                 | 2     | 644    | 60   | 704   |
| .....             | ..... | .....       | ..... | .....      | ..... | .....               | ..... | .....              | ..... | 46     | 3    | 49    |
| .....             | ..... | .....       | ..... | .....      | ..... | .....               | ..... | .....              | ..... | 11     | 35   | 46    |
| .....             | ..... | .....       | ..... | .....      | ..... | .....               | ..... | .....              | ..... | 701    | 98   | 799   |
| .....             | ..... | .....       | ..... | .....      | ..... | .....               | ..... | .....              | ..... | 31     | 4    | 35    |
| .....             | ..... | .....       | ..... | .....      | ..... | .....               | ..... | .....              | ..... | 670    | 94   | 764   |



# SUMMARY OF STUDENTS

## 1913-1914

| College and<br>Course                                         | Seniors     |      |      | Juniors    |      |      | Sophomores  |      |      |
|---------------------------------------------------------------|-------------|------|------|------------|------|------|-------------|------|------|
|                                                               | Men         | Wom. | T'l. | Men        | Wom. | T'l. | Men         | Wom. | T'l. |
| LIBERAL ARTS AND SCIENCES                                     |             |      |      |            |      |      |             |      |      |
| General L. and A.....                                         | 36          | 69   | 105  | 35         | 81   | 116  | 37          | 82   | 119  |
| Business .....                                                | 29          | 3    | 32   | 38         | 2    | 40   | 71          | 1    | 72   |
| General Science.....                                          | 21          | 9    | 30   | 22         | 11   | 33   | 19          | 5    | 24   |
| Medical Preparatory.....                                      | 6           | .... | 6    | 2          | .... | 2    | 22          | .... | 22   |
| Household Science.....                                        | ....        | 47   | 47   | ....       | 31   | 31   | ....        | 37   | 37   |
| Chemistry .....                                               | 7           | .... | 7    | 5          | .... | 5    | 11          | 1    | 12   |
| Chemical Engineering....                                      | 4           | .... | 4    | 17         | .... | 17   | 17          | .... | 17   |
| Ceramics .....                                                | 10          | .... | 10   | 11         | .... | 11   | 9           | .... | 9    |
| Ceramic Engineering....                                       | 5           | .... | 5    | 5          | .... | 5    | 9           | .... | 9    |
| Totals .....                                                  | 118         | 128  | 246  | 135        | 125  | 260  | 195         | 126  | 321  |
| ENGINEERING                                                   |             |      |      |            |      |      |             |      |      |
| Architecture .....                                            | 27          | .... | 27   | 34         | .... | 34   | 41          | .... | 41   |
| Architectural Engin'r'g                                       | 19          | .... | 19   | 20         | .... | 20   | 44          | .... | 44   |
| Civil Engineering.....                                        | 40          | .... | 40   | 38         | .... | 38   | 42          | .... | 42   |
| Electrical Engineering..                                      | 17          | .... | 17   | 62         | .... | 62   | 50          | .... | 50   |
| Mechanical Engineering                                        | 40          | .... | 40   | 40         | .... | 40   | 58          | .... | 58   |
| Mining Engineering.....                                       | 5           | .... | 5    | 6          | .... | 6    | 5           | .... | 5    |
| Mun. & San. Engin.....                                        | 7           | .... | 7    | 2          | .... | 2    | 12          | .... | 12   |
| Railway Civil Engin....                                       | 3           | .... | 3    | 2          | .... | 2    | 2           | .... | 2    |
| Railway Electr. Engin.                                        | 3           | .... | 3    | ....       | .... | .... | 1           | .... | 1    |
| Railway Mech. Engin...                                        | 2           | .... | 2    | 1          | .... | 1    | 3           | .... | 3    |
| Totals .....                                                  | 163         | .... | 163  | 205        | .... | 205  | 258         | .... | 258  |
| AGRICULTURE                                                   |             |      |      |            |      |      |             |      |      |
| General Agriculture.....                                      | 122         | 1    | 123  | 122        | 1    | 123  | 160         | 2    | 162  |
| Household Science.....                                        | ....        | 20   | 20   | ....       | 8    | 8    | ....        | 24   | 24   |
| Totals .....                                                  | 122         | 21   | 143  | 122        | 9    | 131  | 160         | 26   | 186  |
| MUSIC .....                                                   | 3           | 12   | 15   | 1          | 5    | 6    | ....        | 13   | 13   |
| TOTALS, UNDERGRADUATES AT URBANA.....                         |             |      |      |            |      |      |             |      |      |
|                                                               | Fourth Year |      |      | Third Year |      |      | Second Year |      |      |
| LAW .....                                                     |             |      |      | 19         | .... | 19   | 22          | .... | 22   |
| LIBRARY SCHOOL.....                                           |             |      |      |            |      |      | ....        | 11   | 11   |
| TOTALS, UNDERGRADUATE AND PROFESSIONAL SCHOOLS AT URBANA..... |             |      |      |            |      |      |             |      |      |
| GRADUATE SCHOOL.....                                          |             |      |      |            |      |      |             |      |      |
| SUMMER SESSION (1913)                                         |             |      |      |            |      |      |             |      |      |
| TOTAL REGISTRATION.....                                       |             |      |      |            |      |      |             |      |      |
| Deduct students returned.....                                 |             |      |      |            |      |      |             |      |      |
| Net total, Summer Session.....                                |             |      |      |            |      |      |             |      |      |
| TOTALS AT URBANA.....                                         |             |      |      |            |      |      |             |      |      |
| MEDICINE (Chicago)....                                        | 109         | 6    | 115  | 98         | 8    | 106  | 130         | 9    | 139  |
| DENTISTRY (Chicago).....                                      |             |      |      | 30         | 1    | 31   | 17          | .... | 17   |
| PHARMACY (Chicago)                                            |             |      |      |            |      |      |             |      |      |
| Ph.G. Course.....                                             |             |      |      |            |      |      | 41          | 2    | 43   |
| Ph.C. Course.....                                             |             |      |      |            |      |      | 5           | .... | 5    |
| Total .....                                                   |             |      |      |            |      |      | 46          | 2    | 48   |
| TOTAL IN CHICAGO.....                                         |             |      |      |            |      |      |             |      |      |
| TOTAL IN UNIVERSITY TO FEBRUARY 25, 1914.....                 |             |      |      |            |      |      |             |      |      |
| Deduct Duplicates.....                                        |             |      |      |            |      |      |             |      |      |
| NET TOTAL.....                                                |             |      |      |            |      |      |             |      |      |

# SUMMARY OF STUDENTS

## 1913-1914

| <i>Freshmen</i>   |             |             | <i>Specials</i> |             |             | <i>Totals</i> |              |              |
|-------------------|-------------|-------------|-----------------|-------------|-------------|---------------|--------------|--------------|
| <i>Men</i>        | <i>Wom.</i> | <i>T'l.</i> | <i>Men</i>      | <i>Wom.</i> | <i>T'l.</i> | <i>Men</i>    | <i>Women</i> | <i>Total</i> |
| 163               | 144         | 307         | 5               | 9           | 14          | 276           | 385          | 661          |
| 166               | 5           | 171         | ....            | ....        | ....        | 304           | 11           | 315          |
| 46                | 13          | 59          | 2               | 1           | 3           | 110           | 39           | 149          |
| 42                | ....        | 42          | ....            | ....        | ....        | 72            | ....         | 72           |
| ....              | 81          | 81          | ....            | 2           | 2           | ....          | 198          | 198          |
| 31                | 1           | 32          | 1               | ....        | 1           | 55            | 2            | 57           |
| 28                | ....        | 28          | 2               | ....        | 2           | 68            | ....         | 68           |
| 18                | ....        | 18          | ....            | ....        | ....        | 48            | ....         | 48           |
| 17                | ....        | 17          | ....            | ....        | ....        | 36            | ....         | 36           |
| 511               | 244         | 755         | 10              | 12          | 22          | 969           | 635          | 1604         |
| 95                | 2           | 97          | 1               | ....        | 1           | 198           | 2            | 200          |
| 80                | ....        | 80          | 1               | ....        | 1           | 164           | ....         | 164          |
| 82                | ....        | 82          | 2               | ....        | 2           | 204           | ....         | 204          |
| 124               | ....        | 124         | ....            | ....        | ....        | 253           | ....         | 253          |
| 136               | ....        | 136         | 2               | ....        | 2           | 276           | ....         | 276          |
| 25                | ....        | 25          | 1               | ....        | 1           | 42            | ....         | 42           |
| 9                 | ....        | 9           | ....            | ....        | ....        | 30            | ....         | 30           |
| 4                 | ....        | 4           | ....            | ....        | ....        | 11            | ....         | 11           |
| 8                 | ....        | 8           | ....            | ....        | ....        | 12            | ....         | 12           |
| 4                 | ....        | 4           | ....            | ....        | ....        | 10            | ....         | 10           |
| 567               | 2           | 569         | 7               | ....        | 7           | 1200          | 2            | 1202         |
| 348               | 5           | 353         | 86              | 3           | 89          | 838           | 12           | 850          |
| ....              | 75          | 75          | ....            | 5           | 5           | ....          | 132          | 132          |
| 348               | 80          | 428         | 86              | 8           | 94          | 838           | 144          | 982          |
| 1                 | 37          | 38          | ....            | 8           | 8           | 5             | 75           | 80           |
|                   |             |             |                 |             |             | 3012          | 856          | 3868         |
| <i>First Year</i> |             |             |                 |             |             |               |              |              |
| 60                | ....        | 60          | 7               | ....        | 7           | 108           | ....         | 108          |
| 2                 | 29          | 31          | ....            | ....        | ....        | 2             | 40           | 42           |
|                   |             |             |                 |             |             | 3122          | 896          | 4018         |
|                   |             |             |                 |             |             | 263           | 58           | 321          |
|                   |             |             |                 |             |             | 441           | 272          | 713          |
|                   |             |             |                 |             |             | 223           | 74           | 297          |
|                   |             |             |                 |             |             | 218           | 198          | 416          |
|                   |             |             |                 |             |             | 3603          | 1152         | 4755         |
| 66                | 6           | 72          | 13              | 5           | 18          | 416           | 34           | 450          |
| 40                | 1           | 41          | ....            | ....        | ....        | 87            | 2            | 89           |
| 115               | 2           | 117         | 82              | ....        | 82          | 238           | 4            | 242          |
| 6                 | 2           | 8           | ....            | ....        | ....        | 11            | 2            | 13           |
| 121               | 4           | 125         | 82              | ....        | 82          | 249           | 6            | 255          |
|                   |             |             |                 |             |             | 752           | 42           | 794          |
|                   |             |             |                 |             |             | 4355          | 1194         | 5549         |
|                   |             |             |                 |             |             | 17            | 3            | 20           |
|                   |             |             |                 |             |             | 4338          | 1191         | 5529         |



# DIRECTORY OF ALUMNI ASSOCIATIONS

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## GENERAL ALUMNI ASSOCIATION

President: S. A. Bullard, '78, 317-318 Unity bldg., Springfield, Ill.  
Sec'y-Treasurer: Franklin W. Scott, '01, 1209 W. Springfield ave., Urbana, Ill.

## DEPARTMENTAL ALUMNI ASSOCIATIONS

- The Alumni Association of the Library School  
Pres.: Lillian B. Arnold, '02, Public Library, Dubuque, Ia.  
Sec'y-Treas.: Miss Jennie A. Craig, '06, 613 W. Springfield ave., Champaign, Ill.
- The Alumni Association of the College of Medicine  
Pres.: Dr. A. J. Graham, 6306 S. Halsted street, Chicago  
Sec'y: Dr. G. J. Lorch, 1800 Chicago ave., Chicago
- The Alumni Association of the College of Dentistry  
Pres.: Dr. C. M. Loesch, '04.  
Sec'y: Dr. Louis Miller, '06, 813 W. Harrison street, Chicago
- The Alumni Association of the School of Pharmacy  
Pres.: George P. Mills, '84, Evanston, Illinois  
Sec'y-Treas.: A. H. Clark, 74 E. 12th street, Chicago

## LOCAL ALUMNI ASSOCIATIONS

### *California*

- SAN FRANCISCO: The Golden Gate Alumni Association of the University of Illinois  
Pres.: C. W. Woodworth, '85, 2237 Carlton street, Berkeley  
Sec'y-Treas.: R. C. Woodmansee, '03, 6386 Hillegas ave., Oakland
- SOUTHERN CALIFORNIA: The University of Illinois Alumni Association of Southern California  
Pres.: Frank L. Drew, '04, 1154 N. Mentor ave., Pasadena  
Sec'y: Ernest Ingold, '09, 335 S. Hill street, Los Angeles

### *Colorado*

- University of Illinois Club of Colorado  
Pres.: John B. Garvin, '86, 4545 Grove street, Denver  
Sec'y-Treas.: C. A. Schroeder, '01, 1530 Williams street, Denver

### *District of Columbia*

- WASHINGTON: University of Illinois Club of Washington  
Pres.: Wm. L. Chitty, '86, Interior Dept., Washington, D. C.  
Sec'y: W. O. Gordon, '11, Bureau of Animal Husbandry, Dept. of Agriculture, Washington, D. C.

### *Idaho*

- The Illini Club of Idaho  
Pres.: C. F. Pike  
Sec'y: F. N. Ropp, '08, Federal bldg., Boise

### *Illinois*

- AURORA: Aurora Illini Club  
Pres.: M. A. Kendall, '07, 715 Garfield blvd.  
Sec'y-Treas.: W. B. Greene, '08, care Stephens-Adamson Co.
- BELLEVILLE: The Illini Club of Belleville  
Pres.: P. K. Johnson, '09, 408 East First street  
Sec'y: Stanley Krebs

- CENTRALIA:** Centralia Illini Club  
 Pres.: Charles Wham, '12  
 Sec'y-Treas.: Eva Mitchell, '12, 135 N. Cherry street
- CHAMPAIGN:** Champaign County Illini Club  
 Pres.: L. U. Everhart, '09, 901½ W. California avenue, Urbana  
 Sec'y-Treas.: R. F. Little, '07, 606 Chalmers street, Champaign
- CHICAGO:** The Illini Club of Chicago  
 Pres.: George R. Carr, '01, 2005 McCormick Bldg.  
 Sec'y.: J. T. Hanley, '10, 1825 Commercial Bank Bldg.
- University of Illinois Alumnae Association of Chicago**  
 Pres.: Mrs. A. L. Kuehn, '03, 220 S. Ridgeland avenue, Oak Park  
 Sec'y-Treas.: Mrs. R. E. Schreiber, '06, 1500 Farwell avenue
- DECATUR:** Decatur Illini Club  
 Pres.: W. J. Carey, '06, 718 W. Marietta street  
 Sec'y-Treas.: J. L. McLaughlin, '09, 502 Powers bldg.
- LASALLE COUNTY:** LaSalle County Illini Club  
 Pres.: D. G. Cairns, '02, 633 Congress street, Ottawa  
 Sec'y-Treas.: J. R. Fornof, '10, 804 S. Park street, Streator
- MCLEAN COUNTY:** McLean County Illini Club  
 Pres.: Hal M. Stone, '03, 30 White place, Bloomington  
 Sec'y-Treas.: Jessie I. Lummis, '02, 307 North street, Normal
- PEORIA:** Peoria Illini Club  
 Pres.: Ross Hanson, 418 Dickman avenue  
 Sec'y.: C. O. Fischer, '12, 34 Mayer bldg.
- ROCKFORD:** University of Illinois Club of Rockford  
 Pres.: George P. Gallaher, '05, 304 Trust bldg.  
 Sec'y-Treas.: A. C. Pearman, '08, Rockford
- SPRINGFIELD:** Springfield Illini Club  
 Pres.: G. M. Clendenin, '05, 1009 S. 2nd street  
 Sec'y.: C. W. Bullard, '09, 318 S. Glenwood avenue
- VERMILION COUNTY:** Vermilion County Illini Club  
 Pres.: A. R. Hall, '01, Daniel bldg., Danville  
 Sec'y-Treas.: Madge Gundy, '09, Bismarck
- WESTERN ILLINOIS:** Western Illinois Illini Association  
 Pres.: W. E. Whiteside, '07, Moline  
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*Michigan*

- DETROIT:** The University of Illinois Alumni Association of Detroit  
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 Sec'y-Treas.: E. B. Pletcher, '11, 303 Y. M. C. A. bldg., Detroit

*Minnesota*

- MINNEAPOLIS:** University of Illinois Alumni Club of Minneapolis  
 Pres.: H. E. Kahlert, '08, 209 3rd ave., south  
 Sec'y: Mrs. H. M. Turner, '08, 719 S. E. Erie street

*Missouri*

- KANSAS CITY:** University of Illinois Southwestern Alumni Association  
 Pres.: G. E. Tebbetts, '99, Kansas City Terminal Railway, Kansas City  
 Sec'y: D. C. Ketchum, '99, 518 New York Life Bldg., Kansas City, Mo.
- St. Louis:** The Illini Club of St. Louis  
 Pres.: George E. Pfisterer, '08, 1414 Chemical bldg., St. Louis  
 Sec'y-Treas.: A. B. Remick, 1651 Pierce bldg., St. Louis

*New York*

- NEW YORK CITY:** University of Illinois Alumni Association of New York  
 Pres.: A. L. Moorshead, 49 Locust ave., Arlington, N. J.  
 Sec'y: W. F. Schaller, '10, 360 Pearl street, Brooklyn, N. Y.
- SCHENECTADY:** The Illini Club of Schenectady  
 Pres.: C. J. Rohrer, '11, 7 Park pl.

*Ohio*

- CLEVELAND:** The Illini Club of Cleveland  
 Pres.: J. C. Cromwell, '86, Garrett-Cromwell Engineernig Co., New England bldg., Cleveland  
 Sec'y: N. H. Boynton, '09, 1818 E. 45th street, Cleveland

*Oregon*

- PORTLAND:** The Illinois Alumni Association of Portland  
 Pres.: Jean H. Knox, '07  
 Sec'y-Treas.: C. A. Fairweather, 615 Lewis bldg.



*Pennsylvania*

PITTSBURG: University of Illinois Club of Pittsburg  
Pres.: U. J. Lincoln Peoples, '90, 611 Times bldg., Pittsburg  
Sec'y-Treas.: C. D. Terry, '97, 1706 Frick bldg., Pittsburg

*Utah*

Inter Mountain Alumni Association of the University of Illinois  
Pres.: Wesley E. King, '97, 116 U street, Salt Lake City  
Sec'y: W. H. Gregory, '06, 406 Utah Savings & Trust Building, Salt Lake City

*Washington*

Puget Sound Association of the alumni and former students of the University of Illinois  
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Sec'y-Treas.: Edith Page Bennett, '00, High School, Seattle

*Wisconsin*

MADISON: University of Illinois Club of Madison  
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Sec'y.: Frank M. White, '09, 417 Sterling ct., Madison  
MILWAUKEE: University of Illinois Alumni Association of Milwaukee  
Pres.: L. J. Lease, '04, 2118 State street, Milwaukee  
Sec'y-Treas.: F. A. Coffin, '09, 623 Maryland ave., Milwaukee

*India*

University of Illinois Alumni Association of India  
Pres.: Geo. C. Hewes, '83, M. E. Mission, Sitapur, Oudh, India  
Sec'y: Agnes G. Hill, '92, Y. W. C. A., Lucknow, India

*South America*

The Illini Club of Brazil

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